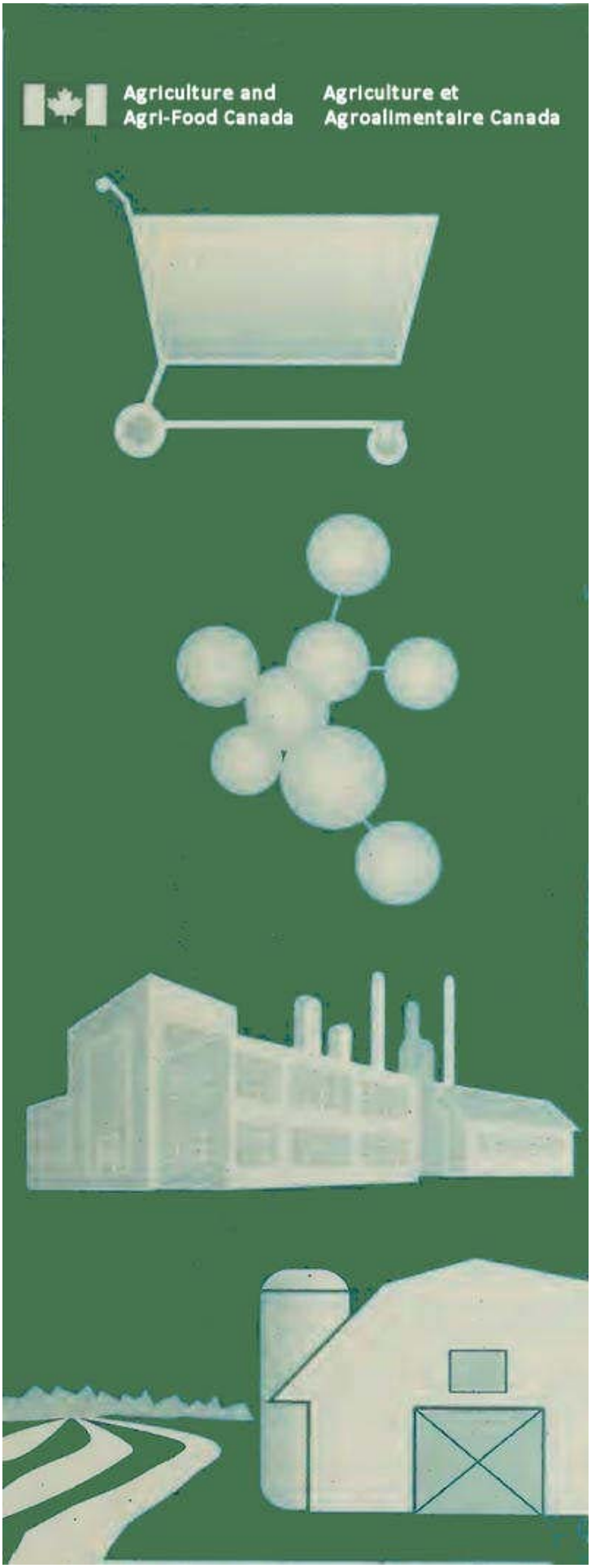

Research Branch
Technical Bulletin 1998-4E

Location and Extent of The Soils of Southern Ontario

A User's Guide to Series, Catenae and Soil Legend Information

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A New Publication from the Ontario Land Resource Unit (OLRU)

Please accept with our compliments a copy of the technical bulletin

Location and Extent of the Soils of Southern Ontario: A user's guide to series, catenae and soil legend information.

This technical bulletin shows the relationship between soils of the agricultural regions of southern Ontario mapped in detail by county and the generalized provincial level characterized by the Soil Landscapes of Canada map (map scale 1:1,000,000). For general users and students of soil science, the report provides an overview of the spatial distribution of soils across southern Ontario. The soil legend provides information about the soil parent material deposits and texture as well as the general category of surface soil drainage. For expert users of soil survey information, this report is intended to provide a framework for broad level soil correlation. It replaces the 1964 publication *Soil Associations of Southern Ontario; Report 30.*

For further information about this bulletin or other publications or activities of the Ontario Land Resource Unit please contact:

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Please note:

After August, 1998 the OLRU will be closed and all enquiries should be directed to Dr. Whitfield,

LOCATION AND EXTENT OF THE SOILS OF SOUTHERN ONTARIO

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Hard copy of this publication can be obtained from:

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1. Background

The *Soil Associations of Southern Ontario,* Report 30 of the Soil Survey of Ontario was published in 1964 (Hoffman *et al.* 1964). The publication of the report coincided with the completion of the county soil surveys for Southern Ontario. This was a landmark in the history of Ontario soil survey. The objective of Report 30 was to create a generalized, small scale view of the soils for the entire agricultural region of Southern Ontario. The generalization was based on soil associations which are "groups of soils which occur together in the field and thus form a significant landscape" (Hoffman *et al.* 1964) . The report also included a Key to the Soil Series of Ontario, which has provided the definitive word on soil series and soil catenae classification. Since publication, Report 30 has provided an important tool for pedologists, even though many of the soil survey concepts have changed and many soil series have been added during recent re-surveys. Consequently, there is a need to update the soils key and the maps showing the distribution of Ontario soils.

Since the publication of Report 30, the status of the soil survey has evolved, as well, the tools to manage data have improved. The Ontario soil survey has reached another landmark, the completion of a digital version of the county soils database. With the data and tools now at hand its now possible to describe the extent and distribution of Ontario soils with a degree of accuracy and flexibility which was not previously possible. As well, there is a need to update the soils key of Ontario to include present classification concepts and new soil series which have been described since Report 30 was published. With these considerations in mind this technical bulletin has been created to replace Report 30 by meeting the following objectives:

I. To update the key to the soil series of Ontario from Report 30 and to present it in the format of the Southern Ontario Soils Legend and;

ii. To show the distribution and extent of soils in Southern Ontario at the catenae level of generalization.

For expert users of soil survey information, this report is intended to provide the basis for identifying and rectifying soil correlation issues. For non-expert users and students of soil science the report provides a generalized overview of the distribution of soils and basic soil properties for the entire Southern Ontario landscape.

Much of the work described has evolved from recent activities of the Ontario Soil Landscape Attribute Project (OSLAP). The computer analysis and field work carried out for OSLAP have resulted in a better understanding of the distribution of soils in Southern Ontario (Jarvis *et al.* 1996). In addition, recent work to upgrade county soil surveys in Eastern Ontario resulted in the development of a generic legend for Ontario soils which provides a consistent view of the soil classification hierarchy in Ontario. These projects have provided much of the background for this report.

2. Soils of Ontario Legend

The Soils of Ontario Legend (SOL) classifies the soils according to their physical properties and soil forming conditions as expressed by soil profile characteristics. The purpose of the SOL is to present the expert user with information which will aid the development of soil data applications, and provide a tool for the pedologist to address soil correlation issues.

The SOL is presented in table 1. The soils of Ontario are classified using criteria from the Canadian System of Soil Classification (CSSC, Agriculture Canada Expert Committee on Soil Survey, 1987). The CSSC hierarchy consists of: Order; Great Group; Subgroup; Family; Series. In addition, the CSSC series can be grouped into catena which have similar family level characteristics, but different drainage. Catenae may transcend soil orders and as such are not part of the CSSC hierarchy, however catenary organization has particular utility when describing the spatial distribution of soils because they link landscape (landscape position) with series level criteria. The SOL is organized by soil family, catena and series. The criteria for each of these classes include:

Soil Family
: Differentiating criteria from the Order, Great Group, and Subgroup levels, plus...
: Parent Material Deposition
: Soil Reaction (mineralogy)
: Parent Material texture

Soil Series
: Differentiating criteria from the Order, Great Group, Subgroup and family levels, plus...
: Detailed Features of Pedon including:
    - Colour
    - Texture
    - Structure
    - Layer Thickness

Soil Catena
: Grouping of soil series with similar Parent Material Deposition,
: Soil Reaction (mineralogy), and Parent Material texture plus ...
: Different Drainage

The SOL is organized in order to reflect both the CSSC and Catenae criteria. The legend is organized as follows (in order):

- Parent Material Deposition
- Parent Material texture
- Catena Name
- Drainage
- Series Name

In order to assist the user, the SOL also includes unique line number identifiers for each series. These numbers are used in the indexes (Section 6 and 7) to cross reference catenae and series with the location of their soil extent and location maps.

3. The Location and Extent of Soils of Southern Ontario

The digital spatial framework of county soil surveys was completed for the OSLAP project. This spatial framework, in combination with GIS capabilities, has made it possible to describe the location and extent of Ontario soils quantitatively. However, in order to present detailed county information at such a broad scale it is necessary to generalize the data to a scale which is appropriate to the presentation. A generalization model must address both data generalization and spatial generalization. In Report 30 data generalization was based on common soil associations and the spatial generalization was based on units of common deposition, similar to present day CSSC family level criteria. These soil associations had little precision and quantification was not possible, but the map still served the community well as the best source of data possible at that time. With improvements in data and technology it is possible to be more precise in our generalization. The OSLAP project has provided the theoretical model to guide data generalization and the Soil Landscapes of Southern Ontario mapping framework is particularly well suited for describing the broad scale distribution of soils.

3.1 A Generalization Model for Soils

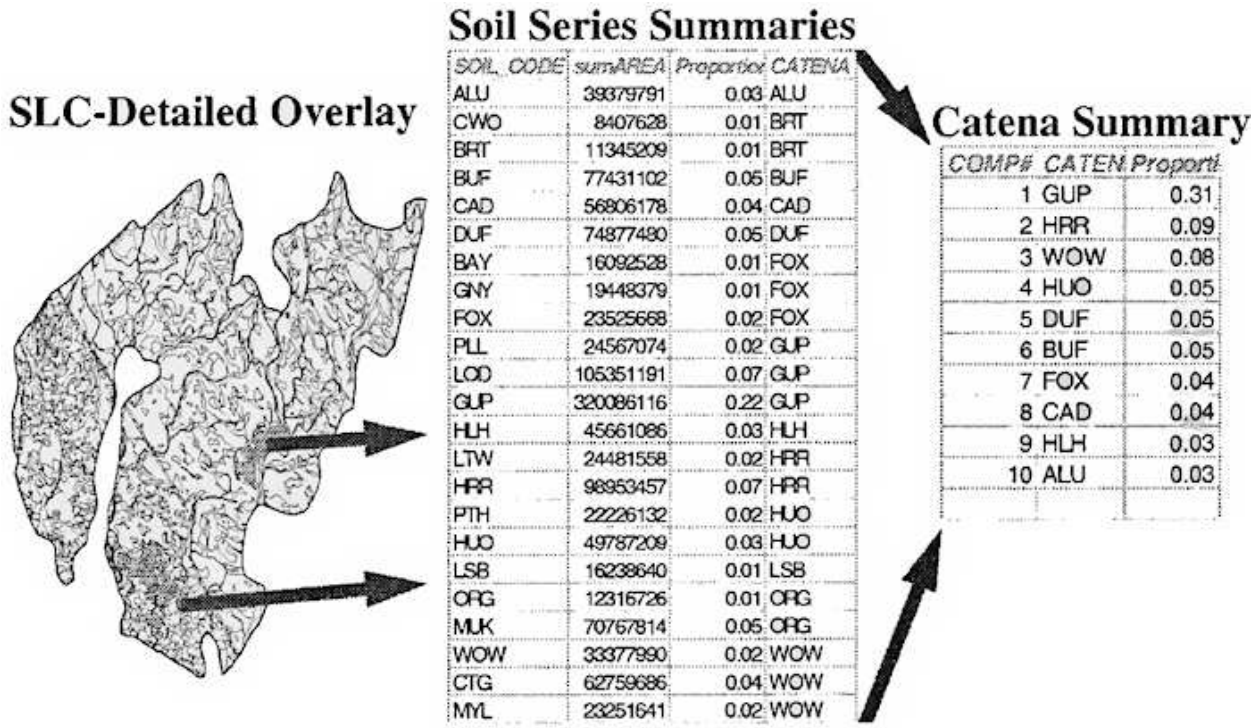
Soils boundaries are not usually sharp, but rather appear as gradual transitions across the landscape. As a result, soils mapping is conducted by bounding similar soils based on discontinuities in selected characteristics. The characteristics used to map are defined to meet the information needs of the user. Consequently, soil map delineation's are not arbitrary, but are scale dependent models based on soil and landscape relationships. Scale determines spatial resolution, for example, a detailed map is expected to have a larger number of soil units in a given extent than a generalized soil map. Scale also influences attribute definition, for example, in a detailed map texture can be narrowly defined using particle size analysis, whereas in generalized maps it is more appropriate to use broad texture classes, reflecting the increase in variability as the extent characterized increases. Consequently, changing the resolution changes the nature of attributes in terms of class limits and attribute definition. The scale sensitivity of attributes are often mis-understood and rarely documented. To rectify this a generalization model was adopted to guide the revision of the Southern Ontario Soil Landscapes for the OSLAP project. The generalization also permits the development of the location and extent of catenae maps presented in this report.

In Ontario detailed soil maps have been developed at scales ranging from 1:25,000 to 1:63,360 (one at 1:126,720), with a corresponding spatial resolution of 5 ha to 12.6 ha based on standard cartographic principles (Monette and MacDonald 1992). The polygons represent soil series or soil associations and are characterized by attributes derived from modal pedon data which describe the soil series. In order to generalize county level soils mapping it is necessary to develop a compatible model of soil and landscape at the broad scale (1:1,000,000). To guide the development of a generalized soil landscape model we have looked to more recent work in the U.S. (USDA 1991) and efforts at soil map generalization in Ontario (Cressman 1996). Based on the review the catena concept was adopted as the general principle to guide the generalization of detailed attributes (1:25,000 to 1:63,360) to the SLC scale (1:1,000,000).

Detailed soil mapping in Ontario has traditionally been based on a landscape model of series or Association with attribute representations consisting of series level pedon data. Series consisting of similar materials are differentiated based on drainage, which implies slope position. The catenae model generalizes series by grouping similar soils with different landscape positions. The following discussion briefly outlines the methods used to generalize series on detailed soil maps to catenae on the generalized SLC map. A more detailed methodology is contained in Appendix B of the OSLAP working paper (Jarvis *et al.* 1997).

The catena generalization was performed by developing an overlay of the SLC with detailed soil maps (figure 1). The soil series proportions are summarized then generalized by grouping into catenas. These catenas are the new SLC components and attribute data is developed based on the dominant soil for each catena in each polygon.

Figure 1. Generalization of Detailed Maps to Catena.



The maps which show soil extent and distribution in section 5 are based on these catenary generalizations. Section 4 presents the Soils of Ontario Legend, which, among other things, provides the catenae groupings that were used for soils data generalization. The legend and maps are not comprehensive, they do not contain some soil catenae and series of limited extent in the province. If necessary the minor soils can be found in the county soil survey reports.

4. Soils of Ontario Legend

Parent Material Class	Parent Material Texture	Line #	CATENA NAME	SERIES NAME	SOIL CODE	DRAINAGE	Map Page #
Glacial Till	Loamy with some coarse fragments	1	ANCASTER	ANCASTER	ACE	Rapid	-
	Sandy with coarse fragments	2	BALMER	BALMER	BMR	Well	-
	Sandy with coarse fragments	3	BONDHEAD	BONDHEAD	BDH	Well	38
		4		GUERIN	GUR	Imperfect	
		5		LYONS	LYS	Poor	
	Loamy with coarse fragments	6	BRYANSTON	BRYANSTON	BBY	Well	26
		7		THORNDALE	THN	Imperfect	
		3		NISSOURI	NIS	Poor	
	Loamy with coarse fragments	9	BURNSTOWN	BURNSTOWN	BTW	Well	-
	Clayey with coarse fragments	10	CAISTOR	CAISTOR	CTR	Imperfect	25
	Sandy with coarse fragments	11	CHRISTY	CHRISTY	CIY	Poor	-
	Loamy with some coarse fragments	12	DARLINGTON	DARLINGTON	DGT	Well	52
		13		WHITBY	WBY	Imperfect	
		14		LYONS	LYS	Poor	
	Loamy with coarse fragments	15	DELORO	DELORO	DLO	Well	40
		16		DUMMER	DMM	Well	
		17		ROCKCROFT	RKF	Imperfect	
		18		HARNEY	HEY	Poor	
	Loamy with coarse fragments	19	DUMFRIES	DUMFRIES	DUF	Well	39
		20		KILLEAN	KIL	Imperfect	
		21		LILY	LIY	Poor	
	Clayey with coarse fragments	22	DUNEDIN	DUNEDIN	DUD	Well	51
		23		CRAIGLEITH	CGH	Imperfect	
	Loamy with coarse fragments	24	EGANVILLE	EGANVILLE	EGV	Well	-
		25		STAFFORD	SFD	Imperfect	
	Loamy with coarse fragments	26	GRENVILLE	GRENVILLE	GVI	Well	63
		27		MATILDA	MTD	Imperfect	
		28		LYONS	LYS	Poor	
	Loamy with some coarse fragments	29	GUELPH	GUELPH	GUP	Well	42
		30		LONDON	LOD	Imperfect	
		31		PARKHILL	PLL	Poor	

Parent Material Class	Parent Material Texture	Line #	CATENA NAME	SERIES NAME	SOIL CODE	DRAINAGE	Map Page #
Glacial Till (Cont'd)	Loamy with coarse fragments	32	HARKAWAY	HARKAWAY	HKY	Well	45
		33		WIARTON	WIT	Imperfect	
		34		PARKHILL	PLL	Poor	
	Loamy with coarse fragments	35	HARRISTON	HARRISTON	HRR	Well	39
		36		LISTOWEL	LTW	Imperfect	
		37		PARKHILL	PLL	Poor	
	Clayey with coarse fragments	38	HURON	HURON	HUO	Mod. Well	38
		39		PERTH	PTH	Imperfect	
		40		BROOKSTON	BKN	Poor	
		41		DORKING	DKG	Very Poor	
	Clayey	42	KING	KING	KIG	Well	54
		43		MONAGHAN	MOG	Imperfect	
		44		BROOKSTON	BKN	Poor	
	Sandy with coarse fragments	45	MONTEAGLE	MONTEAGLE	MGL	Rapid	-
		46		WEMYSS	WYS	Imperfect	
	Loamy with some coarse fragments	47	MURIEL	MURIEL	MUI	Mod. Well	21
		48		GOBLES	GOB	Imperfect	
		49		KELVIN	KVN	Poor	
	Loamy with coarse fragments	50	ONEIDA	ONEIDA	OID	Well	19
		51		CHINGUACOUSY	CGU	Imperfect	
		52		JEDDO	JDD	Poor	
	Loamy with coarse fragments	53	OSPREY	OSPREY	OPY	Well	-
		54		LILY	LIY	Poor	
	Loamy with some coarse fragments	55	OTONABEE	OTONABEE	OBE	Rapid	42
		56		ELDORADO	EDO	Well	
		57		EMILY	EMY	Imperfect	
		58		LYONS	LYS	Poor	
	Loamy with some coarse fragments	59	SENECA	SENECA	SNA	Well	36
	Loamy with some coarse fragments	60	ST CLEMENTS	ST CLEMENTS	SCM	Imperfect	-
		61		WELLESLEY	WEY	Imperfect	
	Sandy with coarse fragments	62	TENNYSON	TENNYSON	TNY	Well	70
		63		BALDERSON	BDS	Imperfect	
		64		INNISVILLE	INV	Poor	
	Loamy with coarse fragments	65	VARS	VARS	VRS	Well	72

Parent Material Class	Parent Material Texture	Line #	CATENA NAME	SERIES NAME	SOIL CODE	DRAINAGE	Map Page #
Glacial Till (Cont'd)	Loamy with coarse fragments	66	VASEY	VASEY	VSY	Well	46
		67		HOWLAND	HWD	Imperfect	
		68		LYONS	LYS	Poor	
	Loamy	69	VINCENT	VINCENT	VCT	Well	47
		70		KEMBLE	KMB	Imperfect	
		71		BROOKSTON	BKN	Poor	
	Gravelly Sandy	72	WILSONVILLE	WILSONVILLE	WIL	Rapid	31
	Loamy with some coarse fragments	73	WOBURN	WOBURN	WBU	Well	26
		74		MILLIKEN	MLE	Imperfect	
		75		LYONS	LYS	Poor	
	Clayey with some coarse fragments	76	WOLFORD	WOLFORD	WFD	Well	67
		77		MORRISBURG	MBG	Imperfect	
		78		OSNABRUCK	OBK	Poor	
40 - 100 cm of Contrasting Sediments Over Glacial Till	Loamy over Clayey	79	BENNINGTON	BENNINGTON	BNG	Well	23
		80		TAVISTOCK	TVK	Imperfect	
		81		MAPLEWOOD	MPW	Poor	
	Loamy over Clayey	82	BINBROOK	BINBROOK	BNO	Imperfect	27
	Sandy over Clayey	83	BOOKTON	BOOKTON	BOO	Well	23
		84		BERRIEN	BRR	Imperfect	
		85		WAUSEON	WUS	Poor	
	Clayey over Clayey	86	CASHEL	CASHEL	CSH	Well	24
		87		PEEL	PEL	Imperfect	
		88		MALTON	MAT	Poor	
	Sandy over Loamy	89	DUNDONALD	DUNDONALD	DUL	Well	48
		90		EDENVALE	EDV	Imperfect	
		91		MILL	MIL	Poor	
	Sandy over Loamy	92	FREEPORT	FREEPORT	FEP	Well	-
		93		KOSSUTH	KSU	Imperfect	
	Sandy over Loamy with coarse fragments	94	HILLSBURGH	HILLSBURGH	HLH	Well	49
	Loamy over Loamy	95	HONEYWOOD	HONEYWOOD	HYW	Well	24
		96		EMBRO	EBR	Imperfect	
		97		CROMBIE	CMB	Poor	
	Loamy over Clayey	98	LAMBTON	LAMBTON	LMB	Well	29
	Loamy over Loamy with coarse fragments	99	MANNHEIM	MANNHEIM	MNM	Well	60
	Sandy over Sandy, gravelly with	100	SCOTLAND	SCOTLAND	STD	Rapid	31

Parent Material Class	Parent Material Texture	Line #	CATENA NAME	SERIES NAME	SOIL CODE	DRAINAGE	Map Page #
40-100 cm of Contrasting Sediments Over Glacial Till (Cont'd)	coarse fragments	101	SCOTLAND	OAKLAND	OKL	Imperfect	31
	Sandy over Loamy	102	WALSHER	WALSHER	WSH	Well	29
		103		VITTORIA	VIT	Imperfect	
		104		SILVER HILL	SIN	Poor	
	Clayey with some coarse fragments	105	WAUPOOS	WAUPOOS	WPO	Well	53
	over Loamy	106		SOLMESVILLE	SMV	Imperfect	
		107		LINDSAY	LSY	Poor	
	Loamy over Loamy	108	WOOLWICH	WOOLWICH	WOW	Well	54
		109		CONESTOGO	CTG	Imperfect	
		110		MARYHILL	MYL	Poor	
Lacustrine or Marine	Loamy	111	ALMONTE	ALMONTE	AMO	Well	71
		112		SNEDDEN	SND	Imperfect	
		113	APPLETON	APPLETON	APP	Well	-
	Clayey	114	BLACKWELL	BLACKWELL	BCW	Poor	28
	Loamy	115	BRANT	BRANT	BRT	Well	21
		116		TUSCOLA	TUC	Imperfect	
		117		COLWOOD	CWO	Poor	
	Clayey	118	BRANTFORD	BRANTFORD	BFO	Well	19
		119		BEVERLY	BVY	Imperfect	
		120		TOLEDO	TLD	Poor	
	Clayey	121	CARP	CARP	CRP	Imperfect	64
		122		NORTH GOWER	NGW	Poor	
		123		BELMEADE	BMD	Very Poor	
	Clayey	124	CLYDE	CLYDE	CYD	Poor	25
	Clayey	125	DALHOUSIE	DALHOUSIE	DHU	Imperfect	66
		126		BRANDON	BDO	Poor	
		127		GOODSTOWN	GDT	Very Poor	
	Sandy	128	FOX	FOX	FOX	Rapid	22
		129		SULLIVAN	SVN	Well	
		130		BRADY	BAY	Imperfect	
		131		GRANBY	GNY	Poor	
	Clayey	132	GANANOQUE	GANANOQUE	GQU	Well	46
		133		LANSDOWNE	LDW	Imperfect	

Parent Material Class	Parent Material Texture	Line #	CATENA NAME	SERIES NAME	SOIL CODE	DRAINAGE	Map Page #
Lacustrine or Marine (Cont'd)	Clayey	134	GANANOQUE	NAPANEE	NPE	Poor	46
	Sandy	135	GRIMSBY	GRIMSBY	GMY	Well	27
		136		VINELAND	VLD	Imperfect	
		137		FLAMBOROUGH	FMB	Poor	
	Clayey	138	LEITH	LEITH	LTH	Well	-
	Clayey	139	LOCKPORT	LOCKPORT	LKP	Well	44
	Sandy	140	LOWBANKS	LOWBANKS	LOW	Imperfect	34
		141		TRAFALGAR	TFG	Poor	
		142		MORLEY	MOY	Very Poor	
	Loamy	143	MEDONTE	MEDONTE	MDT	Well	50
		144		LOVERING	LVR	Imperfect	
		145		ATHERLY	ATY	Poor	
	Clayey	146	MELBOURNE	MELBOURNE	MEL	Well	30
		147		EKFRID	EKF	Imperfect	
		148		STRATHBURN	SBN	Poor	
	Loamy	149	MINESING	MINESING	MSG	Poor	57
	Loamy	150	NEWBURGH	NEWBURGH	NWG	Well	-
		151		PICADILLY	PAY	Imperfect	
		152		HINCHINBROOKE	HHO	Poor	
	Loamy	153	NEWCASTLE	NEWCASTLE	NWC	Well	55
		154		MATSON	MTS	Imperfect	
	Loamy	155	NORHAM	NORHAM	NHM	Well	59
		156		CODRINGTON	CGT	Imperfect	
		157		PETHERWICK	PWK	Poor	
	Clayey	158	ONTARIO	ONTARIO	OTI	Mod. Well	28
		159		NIAGARA	NGR	Imperfect	
		160		WELLAND	WLL	Poor	
	Sandy	161	PERCY	PERCY	PCY	Well	53
		162		TRENT	TRT	Imperfect	
		163		FOXBORO	FXB	Poor	
	Loamy	164	PIPERVILLE	PIPERVILLE	PPV	Imperfect	68
		165		OSGOODE	OGO	Poor	
	Clayey	166	RENFREW	RENFREW	RFW	Well	70
		167		RIDEAU	RDU	Imperfect	

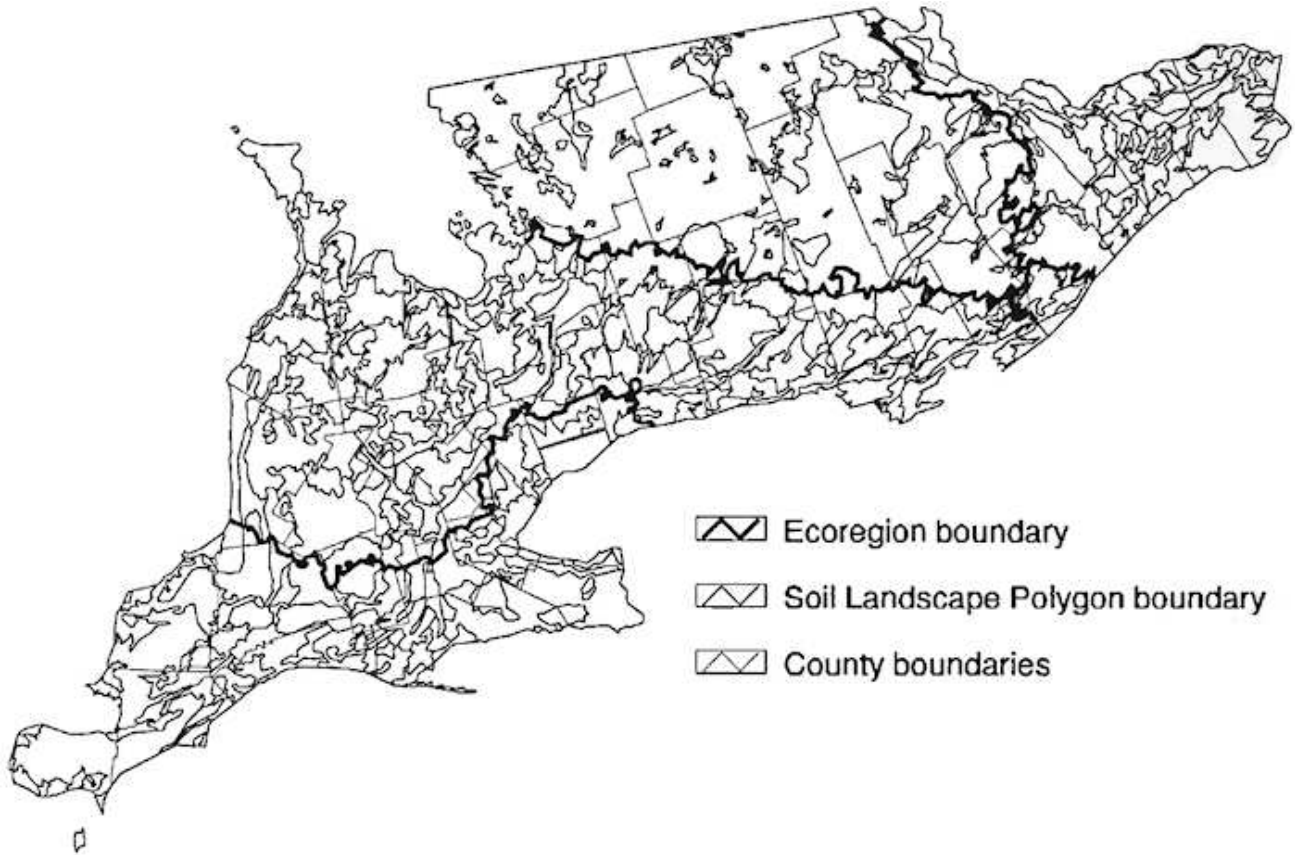
Parent Material Class	Parent Material Texture	Line #	CATENA NAME	SERIES NAME	SOIL CODE	DRAINAGE	Map Page #
Lacustrine or Marine	Clayey	168	RENFREW	ST ROSALIE	STA	Poor	70
(Cont'd)	Clayey	169	SAUGEEN	SAUGEEN	SGE	Well	43
		170		ELDERSLIE	EDS	Imperfect	
		171		CHESLEY	CLY	Poor	
		172		FERNDALE	FRD	Poor	
	Clayey	173	SCHOMBERG	SCHOMBERG	SMG	Well	45
		174		SMITHFIELD	SMF	Imperfect	
		175		SIMCOE	SMC	Poor	
	Loamy	176	SEELYES' BAY	SEELYES' BAY	SYB	Well	-
		177		BATTERSEA	BTR	Imperfect	
		178		MOSCOW	MCW	Poor	
	Clayey	179	SMITHVILLE	SMITHVILLE	SHV	Mod. Well	20
		180		HALDIMAND	HIM	Imperfect	
		181		LINCOLN	LIC	Poor	
	Clayey	182	SOUTH BAY	SOUTH BAY	SHY	Well	47
		183		ELMBROOK	EOK	Imperfect	
		184		SIDNEY	SIY	Poor	
	Sandy, Gravelly	185	SPRINGVALE	SPRINGVALE	SRI	Well	-
	Sandy	186	UPLANDS	UPLANDS	UPD	Rapid	65
		187		RUBICON	RUB	Imperfect	
		188		ST SAMUEL	SSM	Poor	
	Sandy	189	WATERLOO	WATERLOO	WTO	Well	43
		190		HEIDELBERG	HIG	Imperfect	
	Sandy	191	WATTFORD	WATTFORD	WAT	Well	22
		192		NORMANDALE	NDE	Imperfect	
		193		ST WILLIAMS	SLI	Poor	
		194		CHURCHVILLE	CHV	Very Poor	
	Clayey	195	WENDOVER	WENDOVER	WDV	Imperfect	64
		196		BEARBROOK	BBO	Poor	
	Sandy	197	WINONA	WINONA	WIO	Imperfect	-
	Loamy	198	WOOLER	WOOLER	WOO	Well	59
		199		MURRAY	MUY	Imperfect	
		200		STOCKDALE	SKD	Poor	

Parent Material Class	Parent Material Texture	Line #	CATENA NAME	SERIES NAME	SOIL CODE	DRAINAGE	Map Page #
40 - 100 cm of Contrasting Sediments over Lacustrine or Marine	Loamy over Clayey	201	CASTOR	CASTOR	CST	Imperfect	67
		202		BAINSVILLE	BIV	Poor	
		203		MARIONVILLE	MIV	Poor	
	Sandy over Sandy, Gravelly	204	KINTYRE	KINTYRE	KTY	Well	30
		205		HIGHGATE	HHG	Imperfect	
		206		MUIRKIRK	MKK	Poor	
	Sandy over Clayey	207	MANOTICK	MANOTICK	MOK	Well	68
		203		MOUNTAIN	MUA	Imperfect	
		209		ALLENDALE	ALL	Poor	
Fluvial	Sandy	210	BANCROFT	BANCROFT	BCF	Well	-
	Sandy	211	BOLINGBROKE	BOLINGBROKE	BNK	Well	-
		212		WAYSIDE	WYD	Imperfect	
		213		GRANBY	GNY	Poor	
	Sandy	214	BRIGHTON	BRIGHTON	BGH	Well	44
		215		TECUMSETH	TUH	Imperfect	
		216		GRANBY	GNY	Poor	
	Sandy	217	BRINCO	BRINCO	BCO	Well	-
	Sandy Gravelly	218	BURFORD	BURFORD	BUF	Well	48
		219		BRISBANE	BSB	Imperfect	
		220		GILFORD	GFD	Poor	
	Sandy Gravelly	221	COLBORNE	COLBORNE	CLB	Well	58
	Sandy Gravelly	222	DONNYBROOK	DONNYBROOK	DYK	Rapid	50
	Sandy	223	EASTPORT	EASTPORT	ETP	Well	34
	Sandy, Gravelly	224	FONTHILL	FONTHILL	FNT	Well	-
	Sandy, Gravelly	225	HARROW	HARROW	HRW	Well	33
	Sandy, Gravelly	226	KARS	KARS	KRS	Well	69
	Sandy, Gravelly	227	LISBON	LISBON	LSB	Well	58
	Sandy, Gravelly	228	PONTYPOOL	PONTYPOOL	PYO	Well	40
		229	SARGENT	SARGENT	SGT	Well	
		230		GWILLIMBURY	GIY	Imperfect	
	Gravelly	231	SHASHAWANDA	SHASHAWANDA	SSW	Well	-
	Gravelly	232	ST PETERS	ST PETERS	STR	Rapid	-
	Sandy	233	ST THOMAS	ST THOMAS	SHO	Well	69
		234		ACHIGAN	LAC	Imperfect	

Parent Material Class	Parent Material Texture	Line #	CATENA NAME	SERIES NAME	SOIL CODE	DRAINAGE	Map Page #
Fluvial (Cont'd)	Sandy	235	ST THOMAS	CHENEY	CEY	Poor	69
	Sandy with some Coarse Fragments	236	TIOGA	TIOGA	TIG	Well	41
		237		ALLISTON	ALT	Imperfect	
		238		GRANBY	GNY	Poor	
	Sandy with some Coarse Fragments	239	WENDIGO	WENDIGO	WDG	Rapid	55
		240		MALLARD	MLR	Imperfect	
	Sandy with some Coarse Fragments	241	WESTMEATH	WESTMEATH	WMH	Well	-
	Gravelly, Sandy	242		KENABEEK	KEK	Poor	
	Gravelly, Sandy	243	WHITE LAKE	WHITE LAKE	WHK	Rapid	71
	Gravelly	244	WYEVALE	WYEVALE	WVL	Well	-
		245		HENDRIE	HDI	Imperfect	
40-100 cm of Contrasting	Sandy over Gravely	246	CALEDON	CALEDON	CAD	Well	52
Sediments		247		CAMILLA	CML	Imperfect	
over Fluvial		248		AYR	AYR	Poor	
		249	COLBORNE	COLBORNE	CLB	Well	58
		250		BAMFORD	BMF	Imperfect	
	Sandy over Sandy, Gravelly	251	SHEDDEN	SHEDDEN	SDD	Well	33
		252		MIDDLEMARCH	MDM	Imperfect	
	Loamy over Gravely, Sandy	253	ST JACOBS	ST JACOBS	SJB	Well	60
		254		FLORADALE	FAD	Imperfect	
	Loamy over Gravely, Sandy	255	TEESWATER	TEESWATER	TEW	Well	56
		256		FANSHAWE	FAN	Imperfect	
		257		BALLYMOTE	BLL	Poor	
Eolian	Sandy	258	BRIDGMAN	BRIDGMAN	BGM	Well	61
	Sandy	259	PLAINFIELD	PLAINFIELD	PFD	Rapid	20
		260		WALSINGHAM	WAM	Imperfect	
		261		WATERIN	WRN	Poor	
Lithic	Loamy over Bedrock	262	AMELIASBURG	AMELIASBURG	AUG	Well	-
		263		GEROW	GOW	Poor	
	Sandy over Bedrock	264	ATHOL	ATHOL	ATH	Imperfect	49
	Sandy over Bedrock	265	BELMONT	BELMONT	BMT	Well	-
	Variable over bedrock	266	BREYPEN	BREYPEN	BPN	Poor	41
	Loamy over Bedrock	267	BROCKPORT	BROCKPORT	BKP	Well	32
		268		COOKSVILLE	CKV	Imperfect	

Parent Material Class	Parent Material Texture	Line #	CATENA NAME	SERIES NAME	SOIL CODE	DRAINAGE	Map Page #
Lithic (Cont'd)	Loamy over Bedrock	269		MISSISSAUGA	MSP	Poor	-
	Loamy over Bedrock	270	BURNBRAE	BURNBRAE	BNB	Well	-
	Sandy over Bedrock	271	CHANDOS	CHANDOS	CHD	Well	-
	Sandy over Bedrock	272	ELMSLEY	ELMSLEY	ESY	Well	-
	Variable with coarse fragments	273	FARMINGTON	FARMINGTON	FRM	Well	63
	over bedrock	274		FRANKTOWN	FKW	Imperfect	
		275		BROOKE	BOK	Poor	
	Sandy over Bedrock	276	GALWAY	GALWAY	GWY	Imperfect	-
		277		ST CROIX	SCX	Poor	
	Loamy over Bedrock	278	HILLER	HILLER	HIL	Well	56
		279		GEROW	GOW	Poor	
	Sandy over Bedrock	280	METHUEN	METHUEN	MHU	Rapid	-
	Variable with coarse fragments	281	NEPEAN	NEPEAN	NPE	Well	-
	over bedrock	282		FALLOW FIELD	FWF	Imperfect	
		283		BARRHAVEN	BVE	Poor	
	Sandy over Bedrock	284	TWEED	TWEED	TWE	Rapid	66
	Sandy over Bedrock	285	WHITFIELD	WHITFIELD	WTF	Well	-
Organic	Organic	286	HAMPDEN	HAMPDEN	HMP	Very Poor	35
	Organic	287	LONSDALE	LONSDALE	LDL	Very Poor	-
	Organic	288	LORRAINE	LORRAINE	LRR	Very Poor	-
	Organic	289	OAKVIEW	OAKVIEW	OVW	Very Poor	-
	Organic	290	PORT COLBORNE	PORT COLBORNE	PCE	Very Poor	
	Organic	291	SHERKSTON	SHERKSTON	SRK	Very Poor	-
	Organic	292	STYX	STYX	SYX	Very Poor	35
	Organic	293	WAINFLEET	WAINFLEET	WAF	Very Poor	-
Alluvium	VARIABLE	294	BOOMER	BOOMER	BOM	Well	
		295		DONALD	DOD	Imperfect	
		296		HAWKESVILLE	HWV	Poor	
	VARIABLE	297	GRAND	GRAND	GRD	Well	61
		298		MACTON	MCT	Imperfect	
		299		ELMIRA	EMI	Poor	
	VARIABLE	300	KIRKLAND	KIRKLAND	KKD	Well	-
		301		HAYSVILLE	HYV	Imperfect	
		302		HESPELER	HSP	Poor	

5.1 Maps of the Lake Erie Lowland Ecoregion



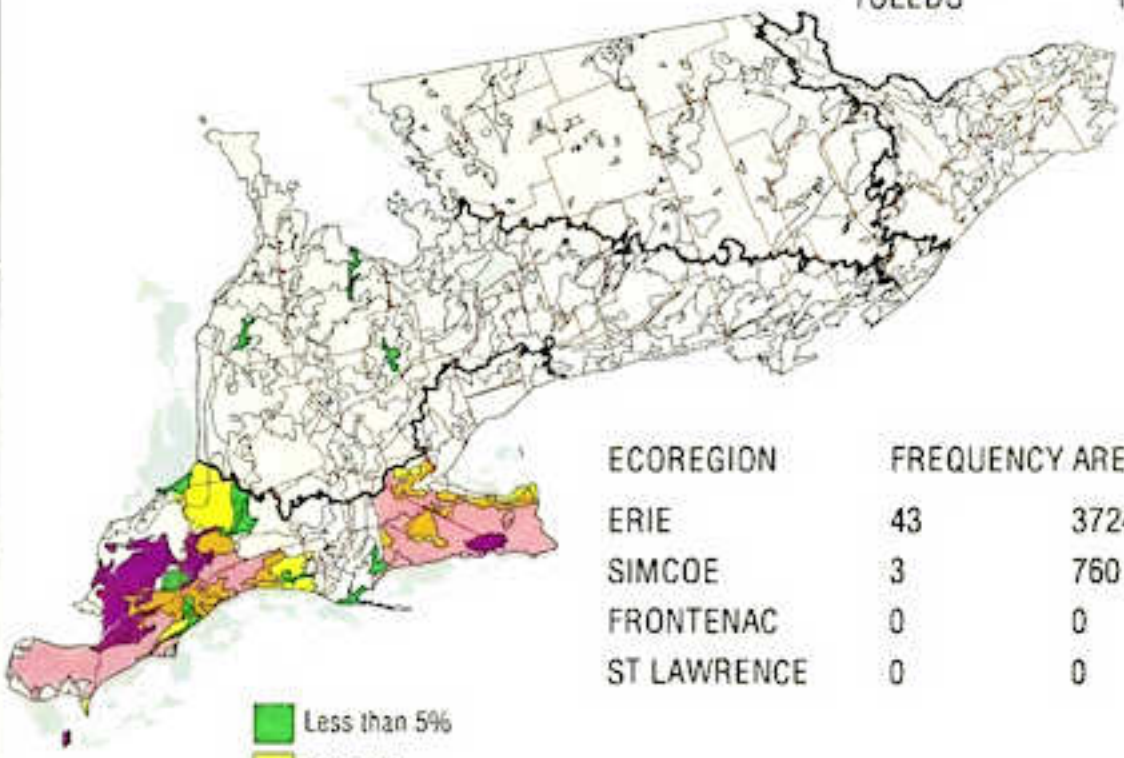
Soil catenae:

Bennington *	Binbrook	Blackwell	Bookton*	Brant*	Brantford*
Brockport	Bryanston	Cashel*	Caistor	Clyde	Eastport
Fox*	Hampden	Harrow	Honeywood*	Grimsby	Kintyre
Lambton	Lowbanks	Melbourne	Muriel	Oneida*	Ontario
Plainfield*	Scotland	Seneca	Shedden	Smithville*	Styx
Walsher	Wattford	Wilsonville	Woburn*		

* denotes soil catenae also found in other ecoregions.

CATENA : BRANTFORD

SERIES : BRANTFORD BFO
BEVERLY BVY
TOLEDO TLD

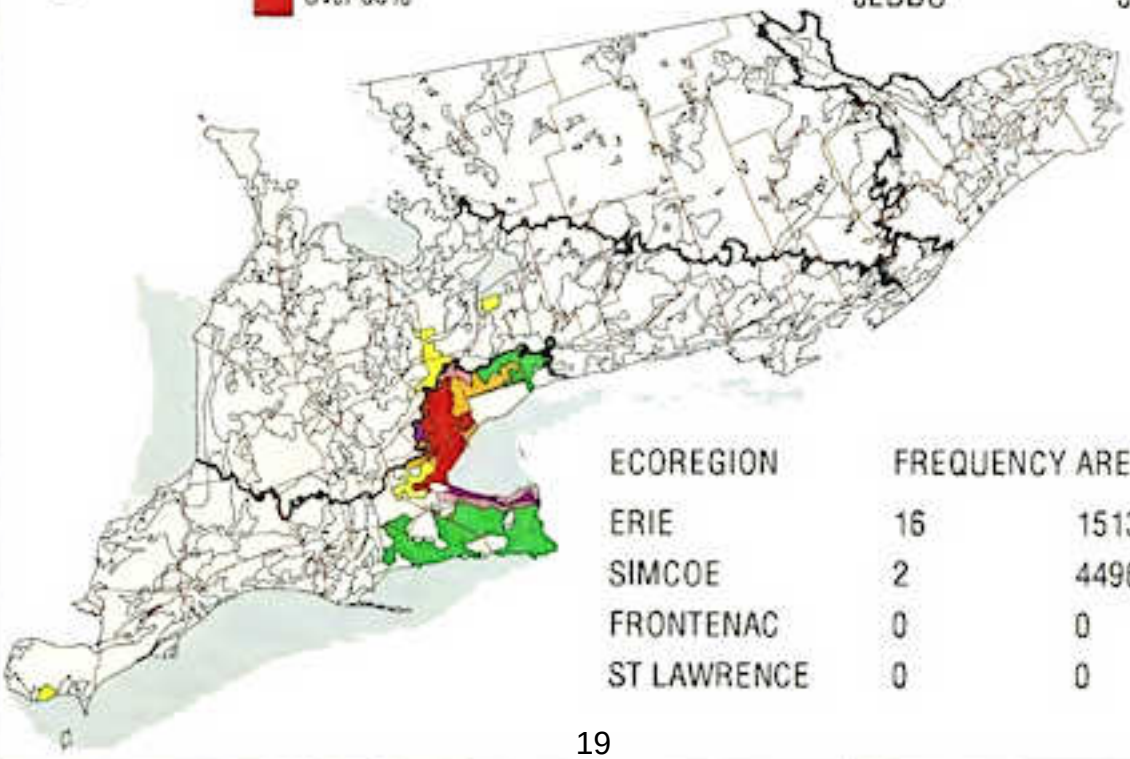


ECOREGION	FREQUENCY	AREA (ha)
ERIE	43	372453
SIMCOE	3	760
FRONTENAC	0	0
ST LAWRENCE	0	0

Less than 5%
5 to 10%
10 to 20%
20 to 40%
40 to 60%
Over 60%

CATENA : ONEIDA

SERIES : ONEIDA OID
CHINGUACOUS CGU
JEDDO JDD

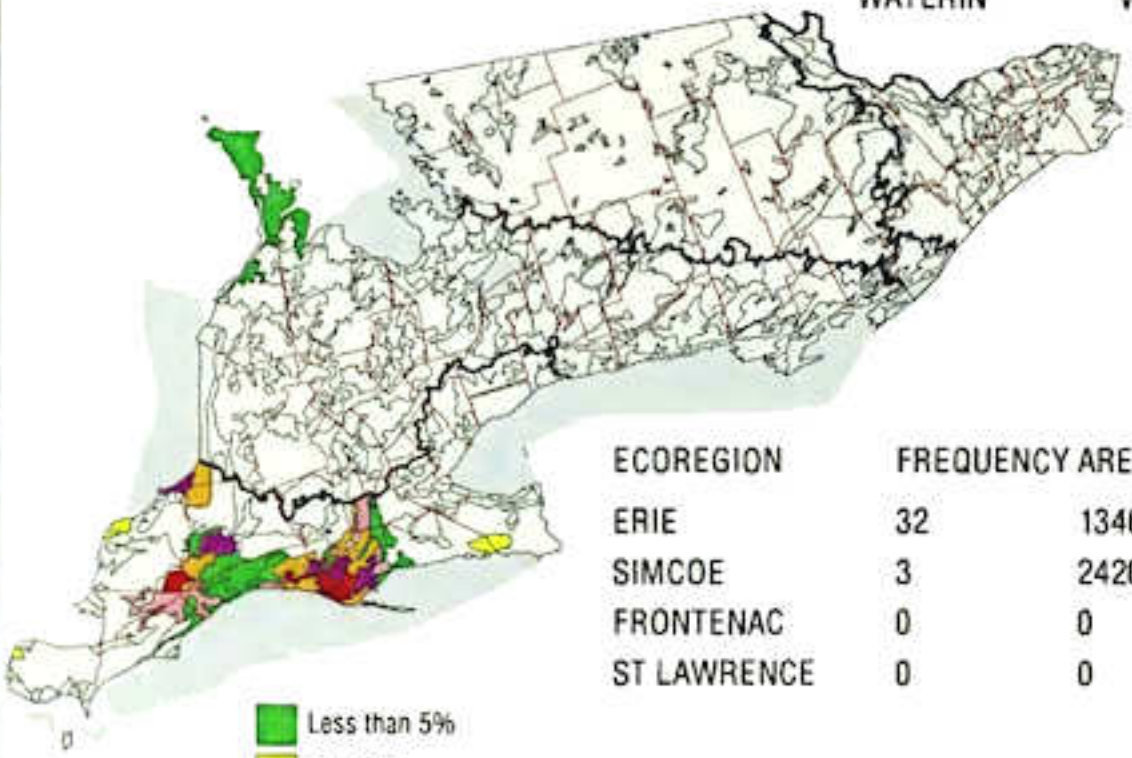


ECOREGION	FREQUENCY	AREA (ha)
ERIE	16	151305
SIMCOE	2	4496
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : PLAINFIELD

SERIES :

PLAINFIELD	PFD
WALSINGHAM	WAM
WATERIN	WRN



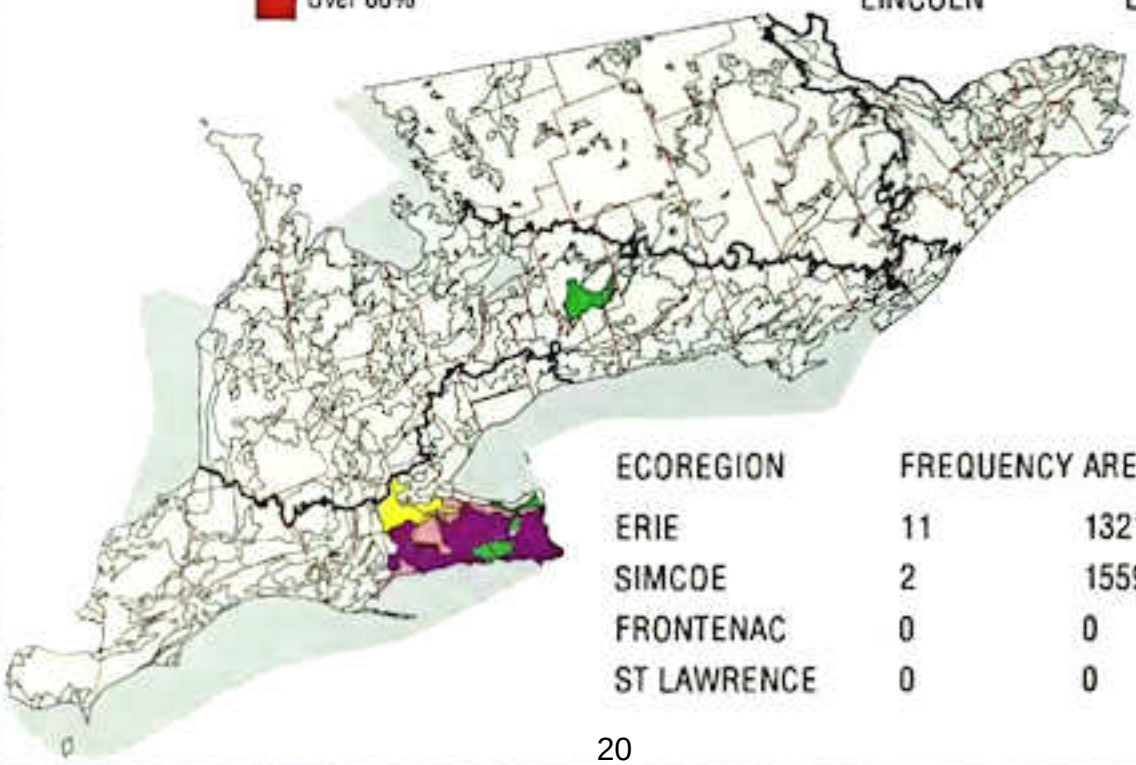
ECOREGION	FREQUENCY	AREA (ha)
ERIE	32	134643
SIMCOE	3	2420
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : SMITHVILLE

SERIES :

SMITHVILLE	SHV
HALDIMAND	HIM
LINCOLN	LIC

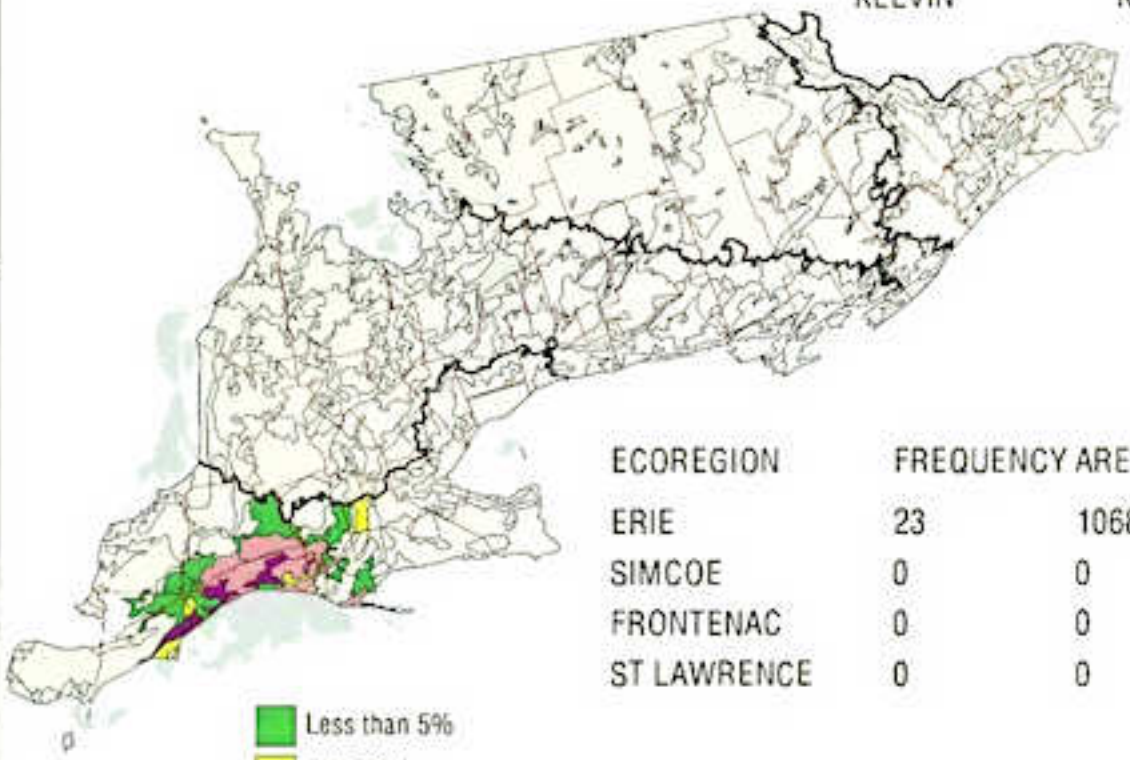


ECOREGION	FREQUENCY	AREA (ha)
ERIE	11	132187
SIMCOE	2	1559
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : MURIEL

SERIES :

MURIEL	MUI
GOBLES	GOB
KELVIN	KVN



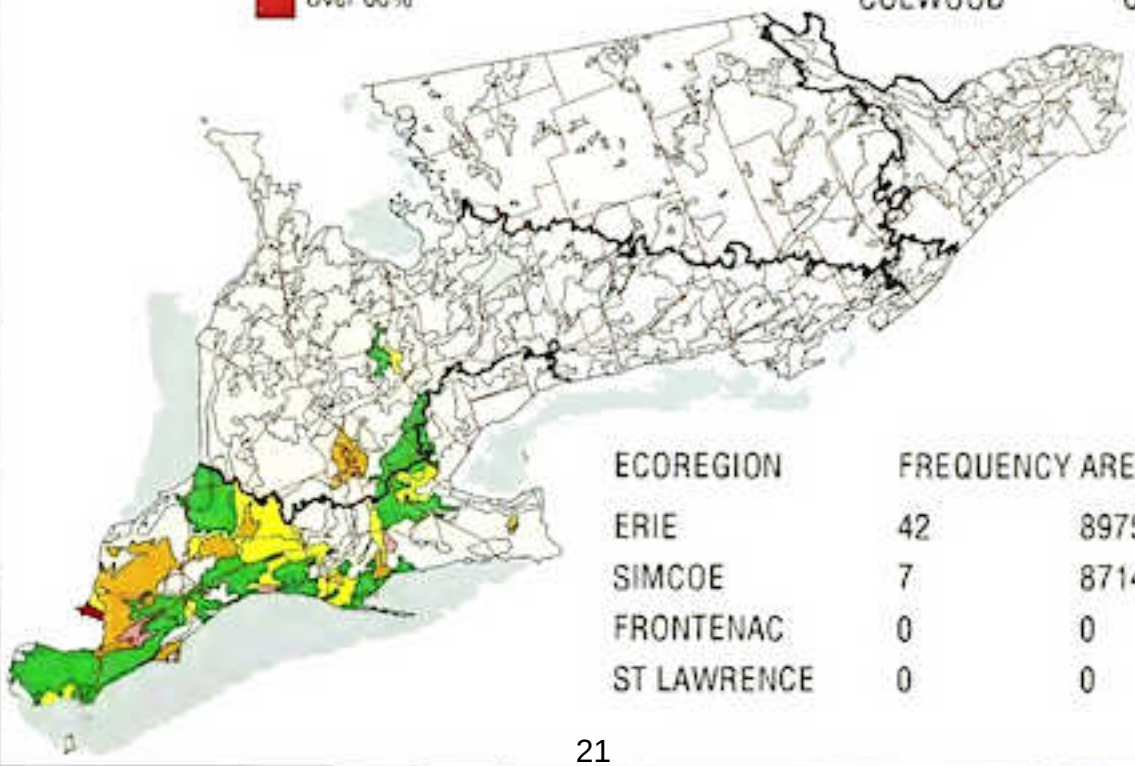
ECOREGION	FREQUENCY	AREA (ha)
ERIE	23	106827
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : BRANT

SERIES :

BRANT	BRT
TUSCOLA	TUC
COLWOOD	CWO

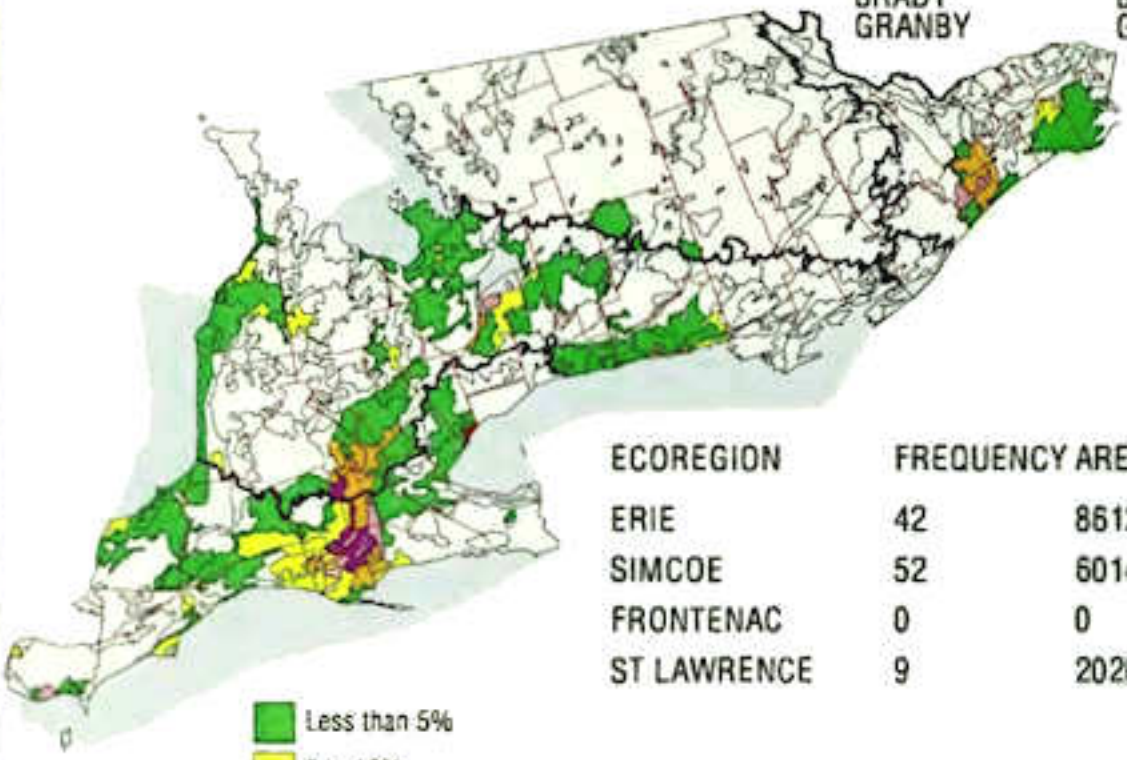


ECOREGION	FREQUENCY	AREA (ha)
ERIE	42	89752
SIMCOE	7	8714
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : FOX

SERIES :

FOX	FOX
SULLIVAN	SVN
BRADY	BAY
GRANBY	GNY



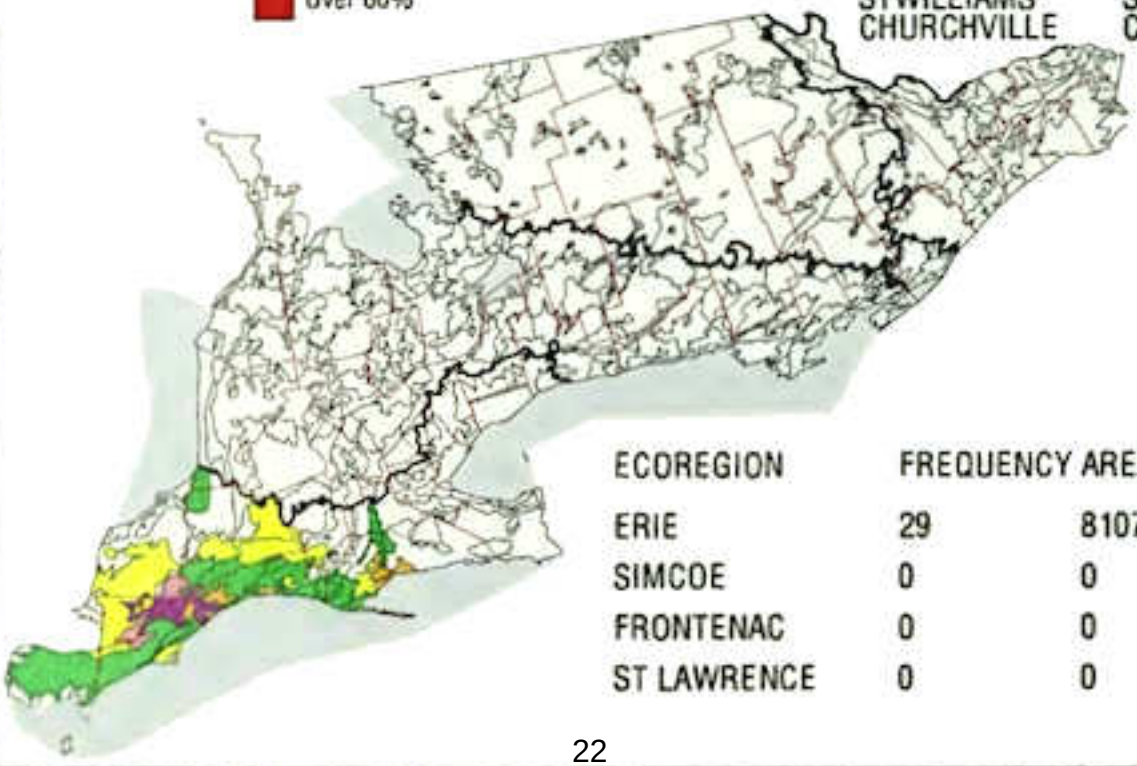
ECOREGION	FREQUENCY	AREA (ha)
ERIE	42	86129
SIMCOE	52	60145
FRONTENAC	0	0
ST LAWRENCE	9	20202

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : WATTFORD

SERIES :

WATTFORD	WAT
NORMANDALE	NDE
STWILLIAMS	SLI
CHURCHVILLE	CHV

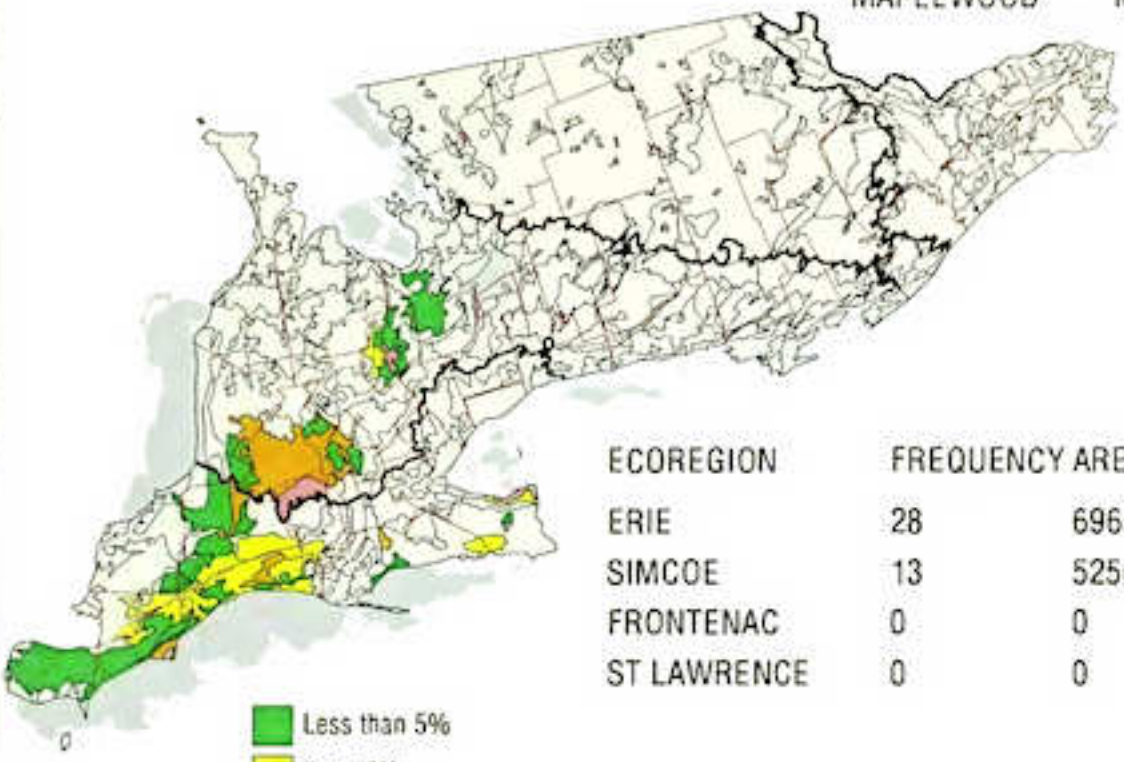


ECOREGION	FREQUENCY	AREA (ha)
ERIE	29	81074
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : BENNINGTON

SERIES :

BENNINGTON	BNG
TAVISTOCK	TVK
MAPLEWOOD	MPW



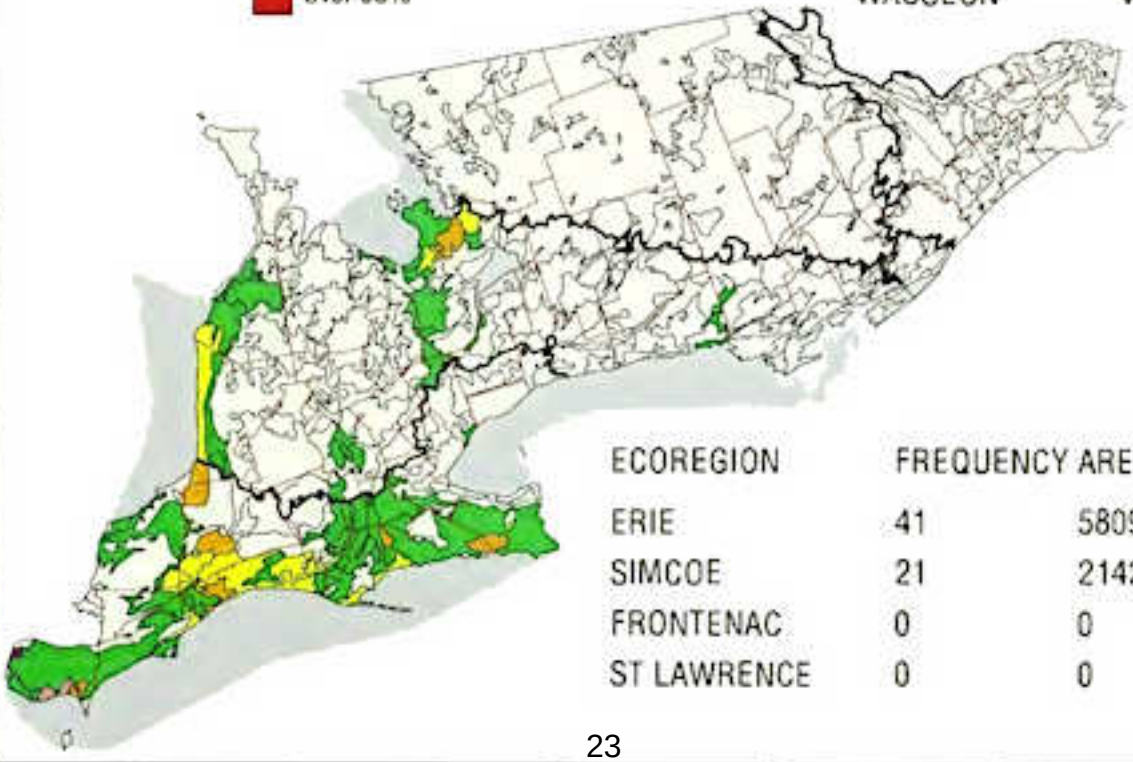
ECOREGION	FREQUENCY	AREA (ha)
ERIE	28	69659
SIMCOE	13	52560
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : BOOKTON

SERIES :

BOOKTON	BOO
BERRIEN	BRR
WAUSEON	WUS

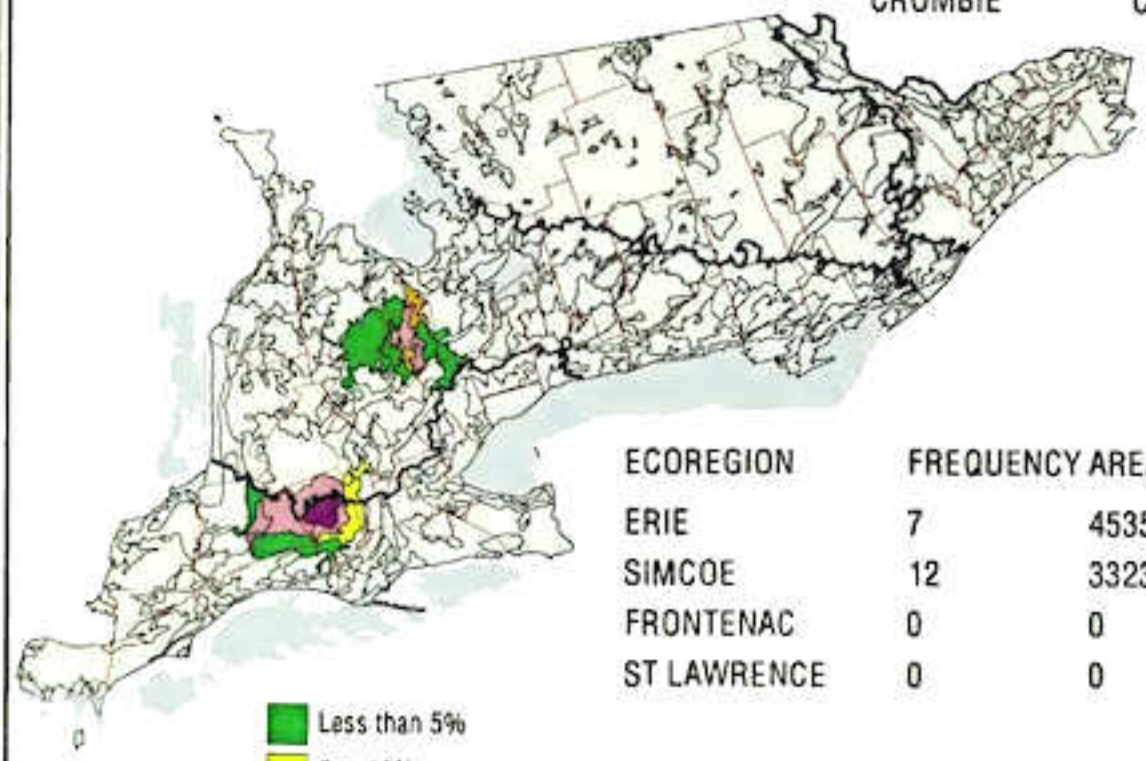


ECOREGION	FREQUENCY	AREA (ha)
ERIE	41	58096
SIMCOE	21	21427
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : HONEYWOOD

SERIES :

HONEYWOOD	HYW
EMBRO	EBR
CROMBIE	CMB



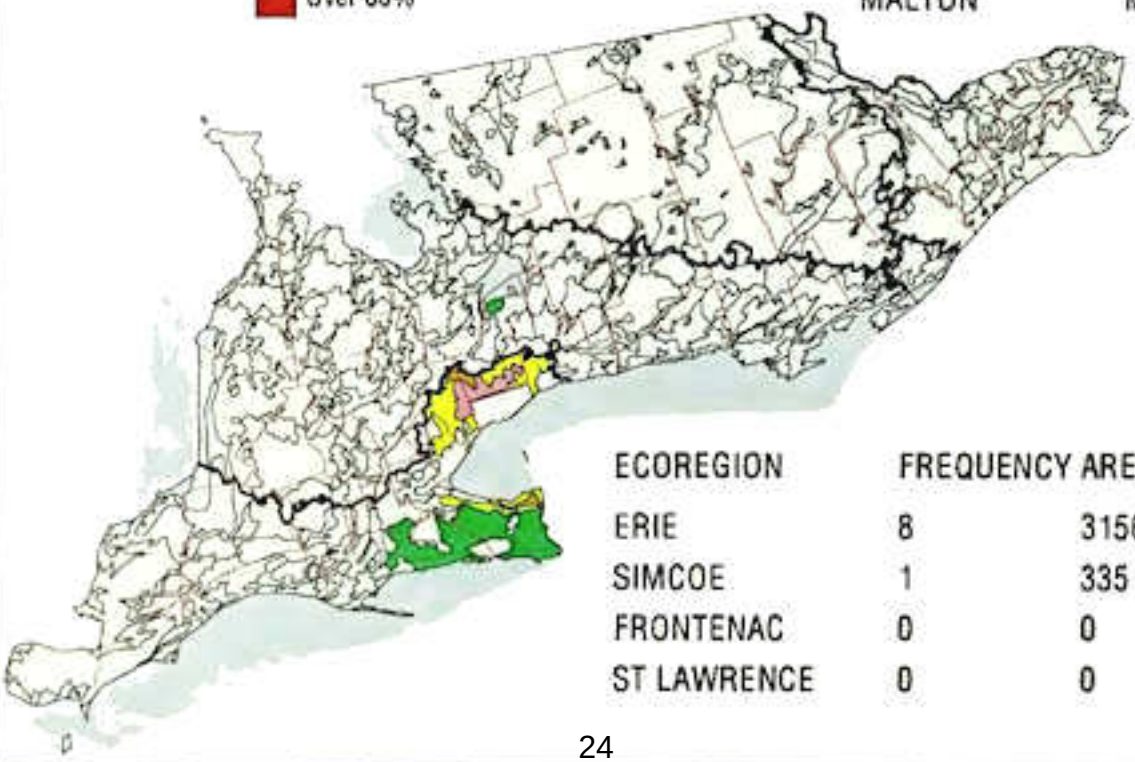
ECOREGION	FREQUENCY	AREA (ha)
ERIE	7	45350
SIMCOE	12	33231
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : CASHEL

SERIES :

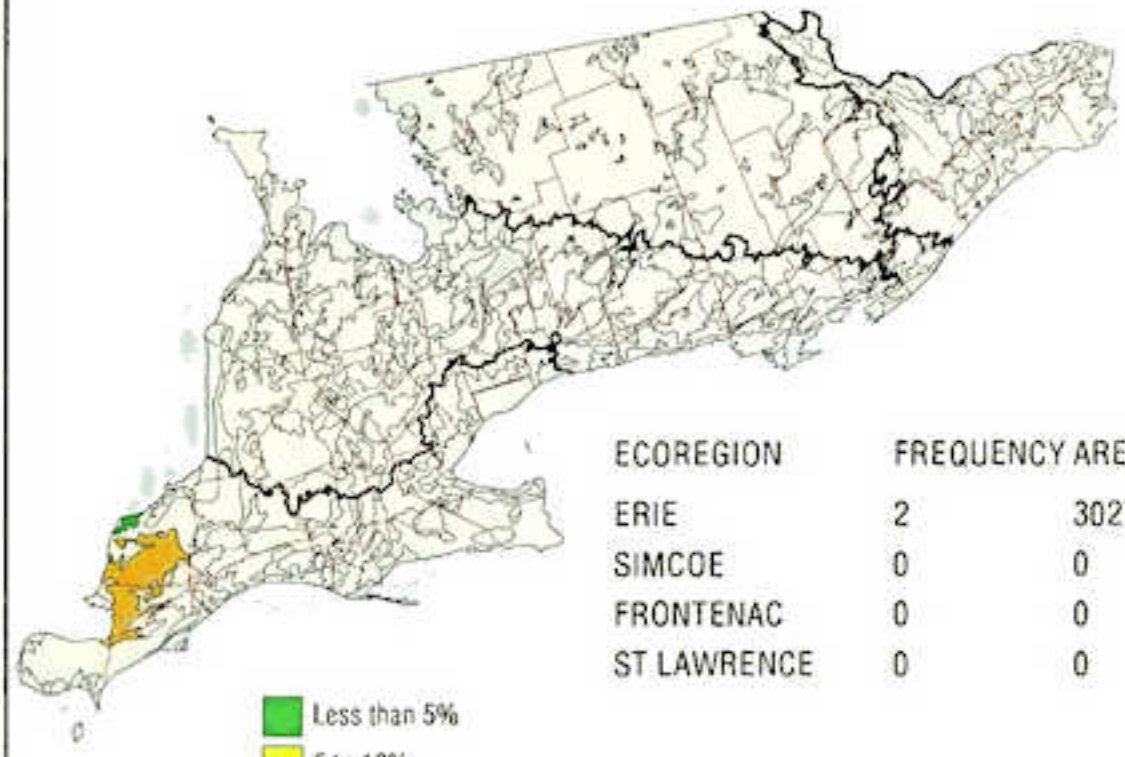
CASHEL	CSH
PEEL	PEL
MALTON	MAT



ECOREGION	FREQUENCY	AREA (ha)
ERIE	8	31561
SIMCOE	1	335
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : CLYDE

SERIES : CLYDE CYD

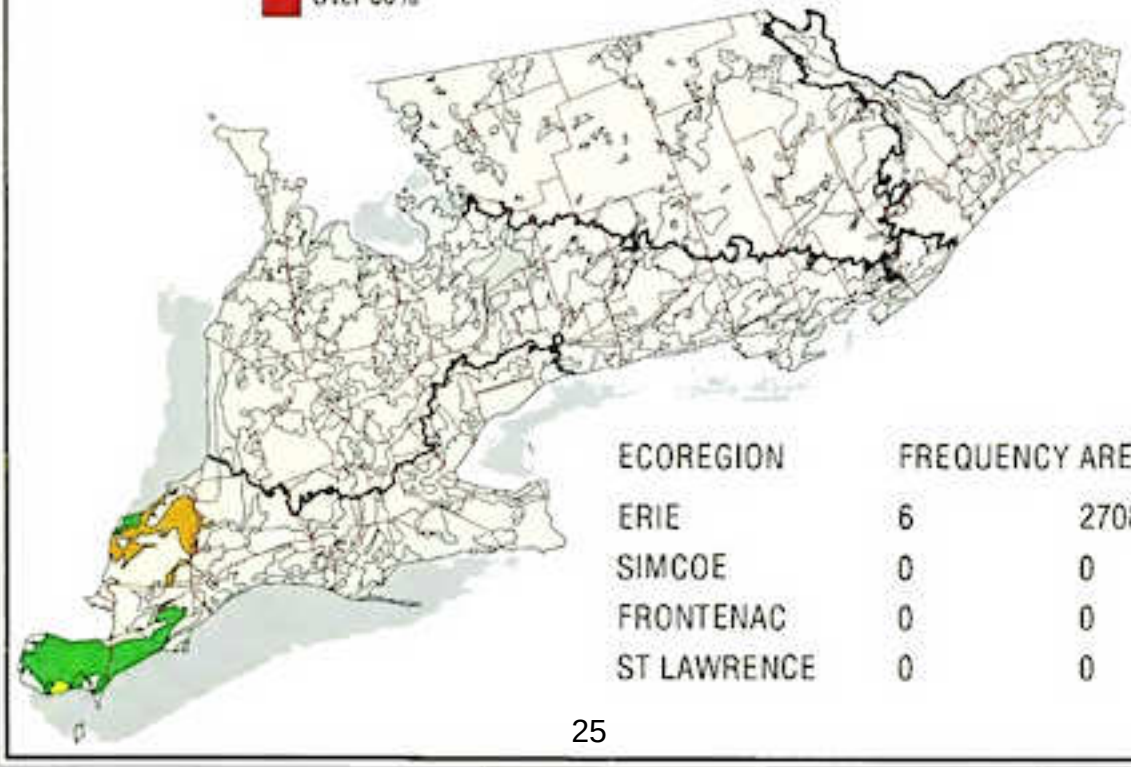


ECOREGION	FREQUENCY	AREA (ha)
ERIE	2	30279
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : CAISTOR

SERIES : CAISTOR CTR

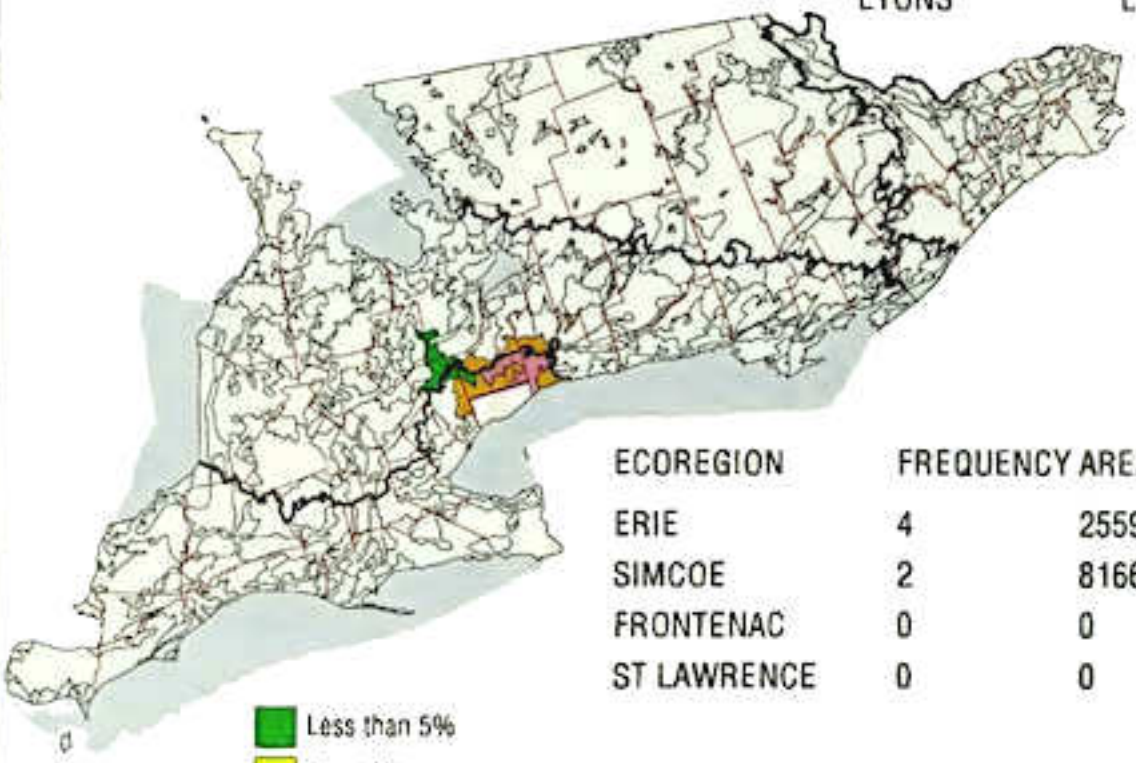


ECOREGION	FREQUENCY	AREA (ha)
ERIE	6	27084
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : WOBURN

SERIES :

WOBURN	WBU
MILLIKEN	MLE
LYONS	LYS



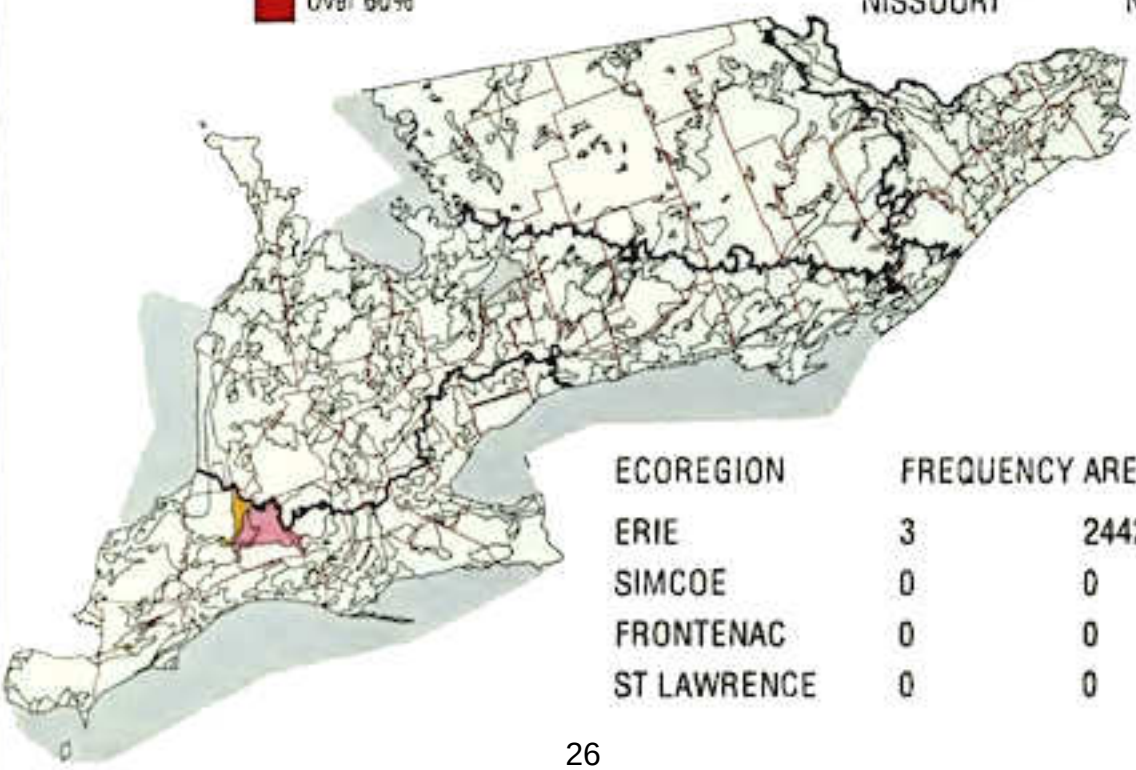
ECOREGION	FREQUENCY	AREA (ha)
ERIE	4	25591
SIMCOE	2	8166
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : BRYANSTON

SERIES :

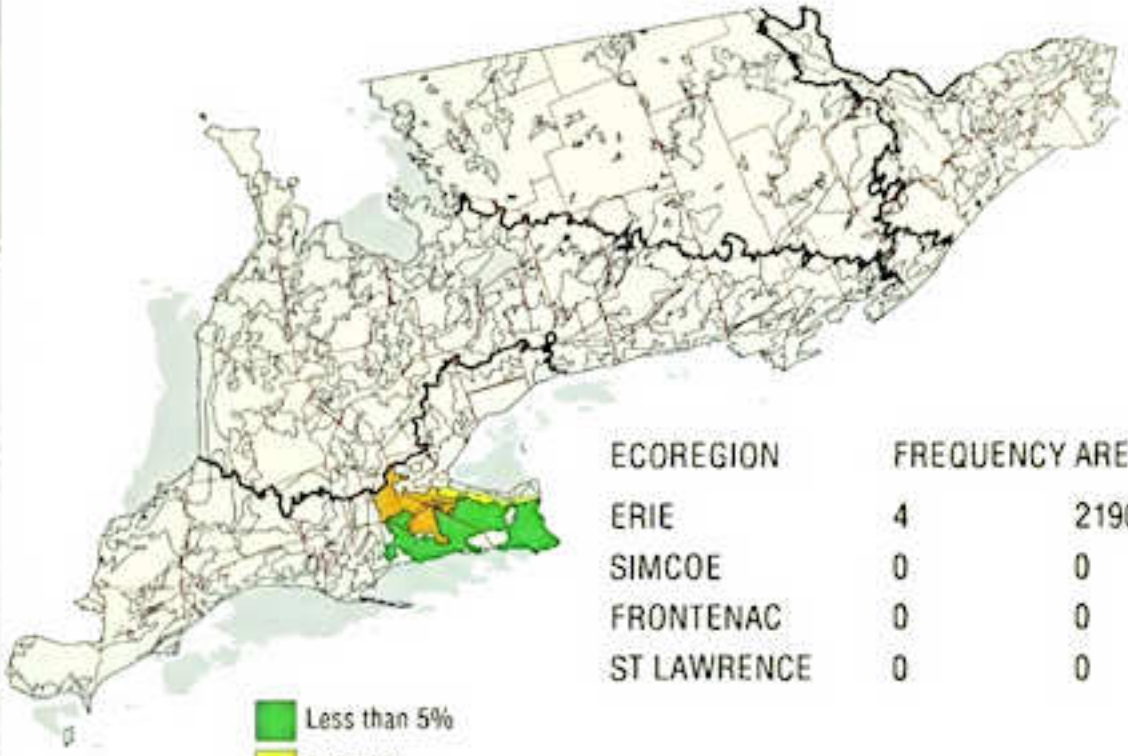
BRYANSTON	BBY
THORNDALE	THN
NISSOURI	NIS



ECOREGION	FREQUENCY	AREA (ha)
ERIE	3	24422
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : BINBROOK

SERIES : BINBROOK BNO

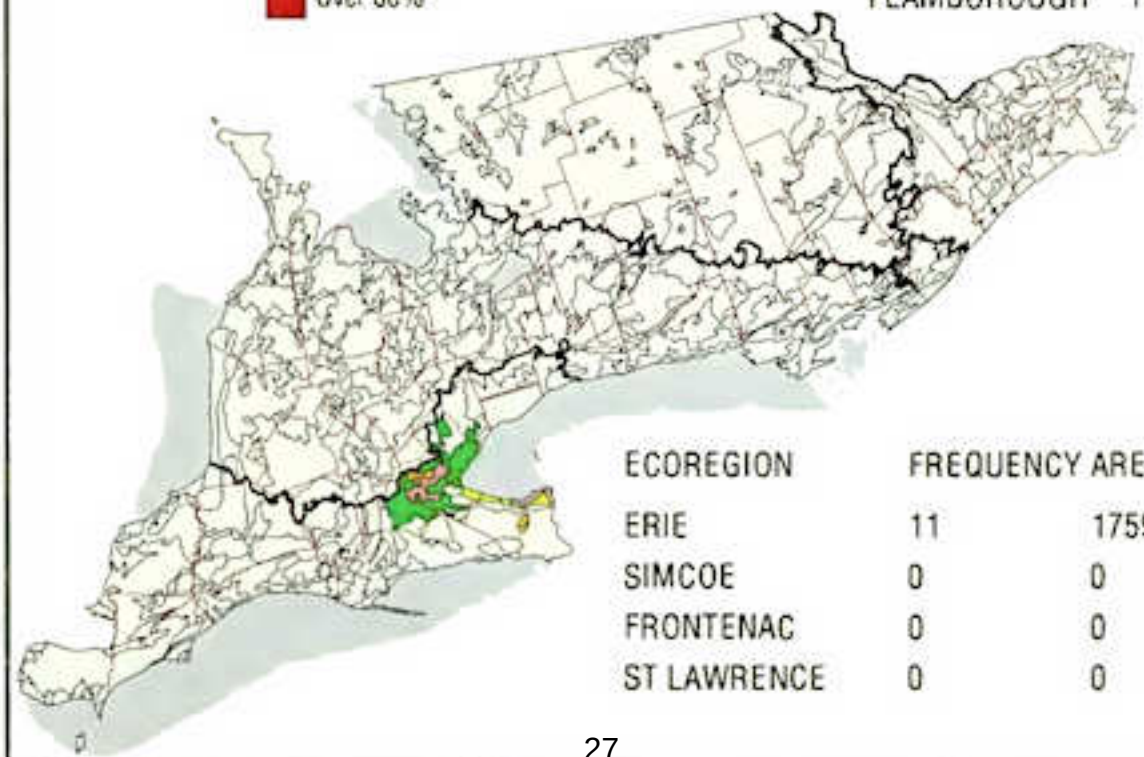


ECOREGION	FREQUENCY	AREA (ha)
ERIE	4	21906
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : GRIMSBY

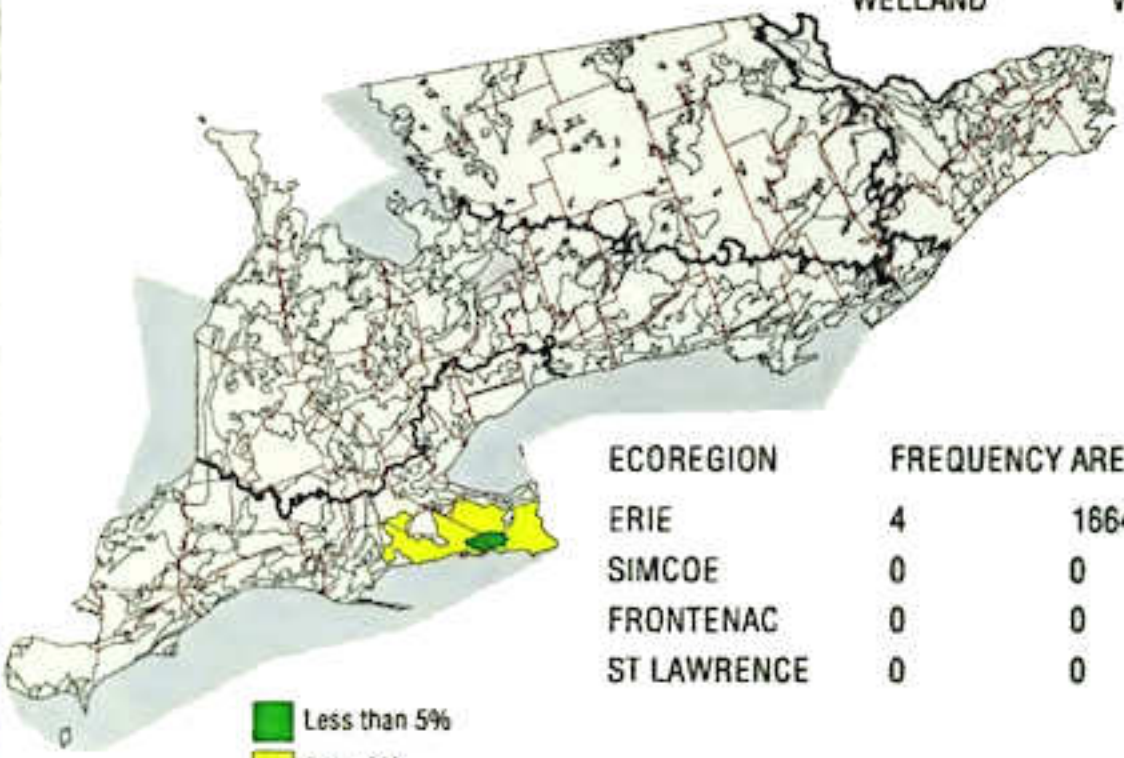
SERIES : GRIMSBY GMY
VINELAND VLD
FLAMBOROUGH FMB



ECOREGION	FREQUENCY	AREA (ha)
ERIE	11	17590
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : ONTARIO

SERIES : ONTARIO OTI
NIAGARA NGR
WELLAND WLL

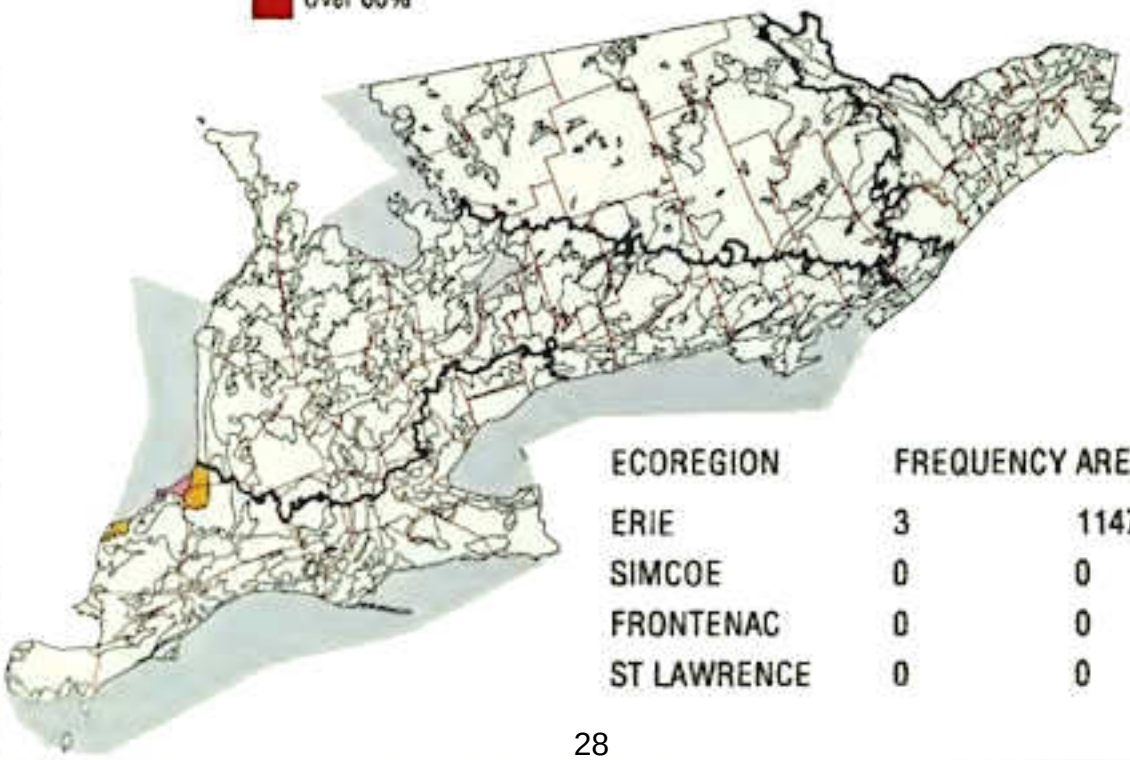


ECOREGION	FREQUENCY	AREA (ha)
ERIE	4	16648
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

Less than 5%
5 to 10%
10 to 20%
20 to 40%
40 to 60%
Over 60%

CATENA : BLACKWELL

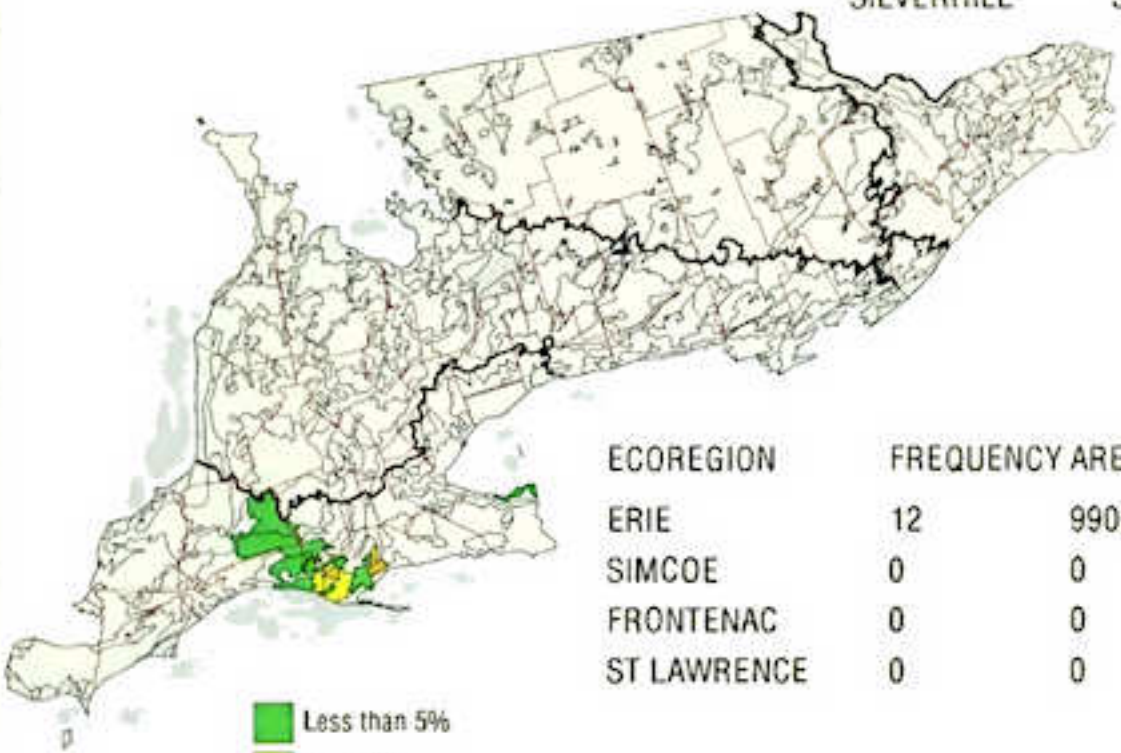
SERIES : BLACKWELL BCW



ECOREGION	FREQUENCY	AREA (ha)
ERIE	3	11478
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : WALSHER

SERIES : WALSHER WSH
VITTORIA VIT
SILVERHILL SIH

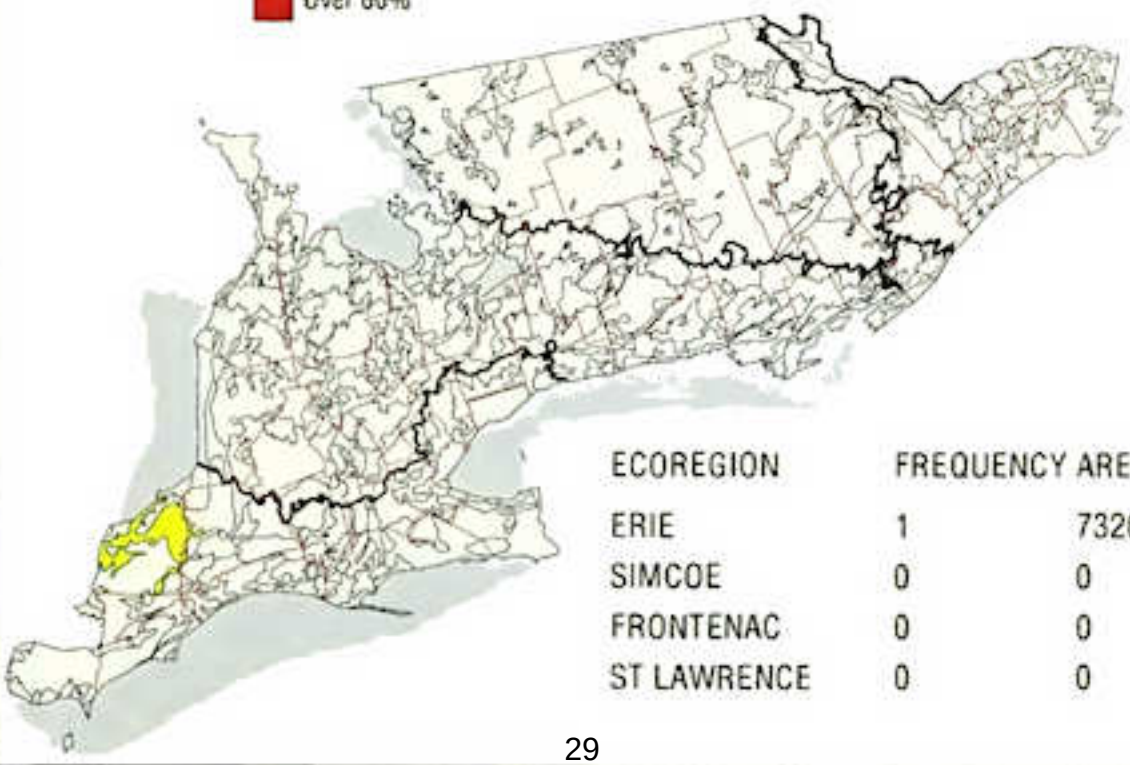


ECOREGION	FREQUENCY	AREA (ha)
ERIE	12	9900
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : LAMBTON

SERIES : LAMBTON LMB

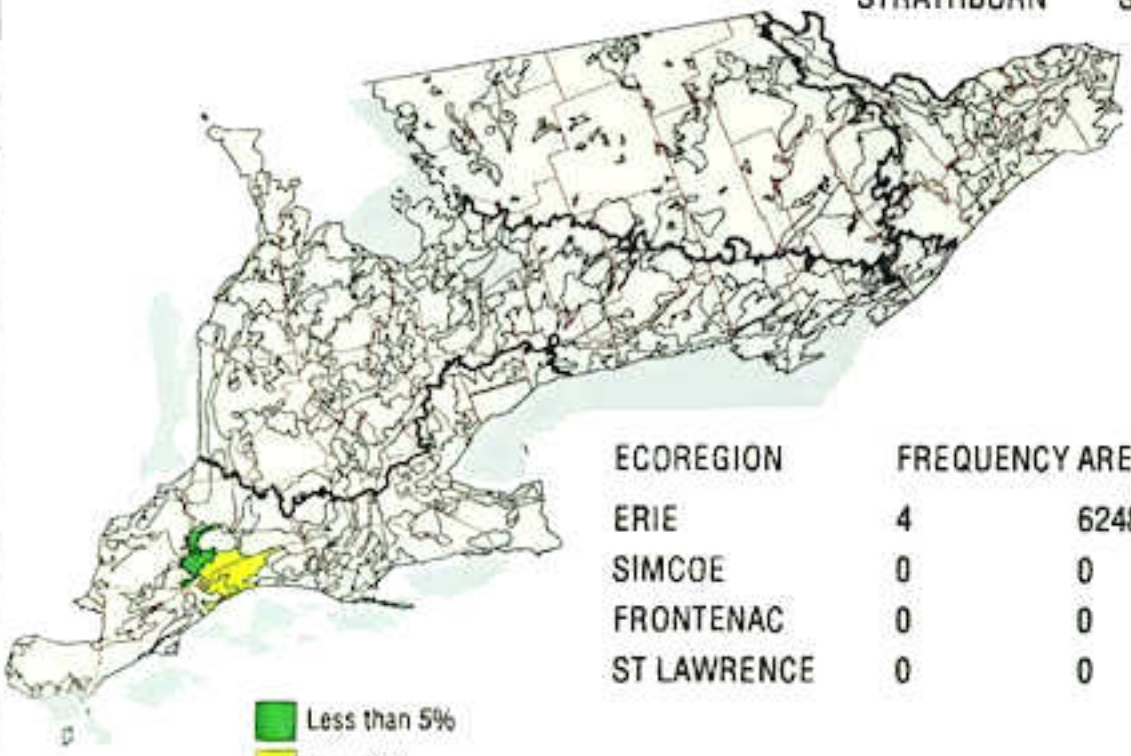


ECOREGION	FREQUENCY	AREA (ha)
ERIE	1	7326
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : MELBOURNE

SERIES :

MELBOURNE	MEL
EKFRID	EKF
STRATHBURN	SBN



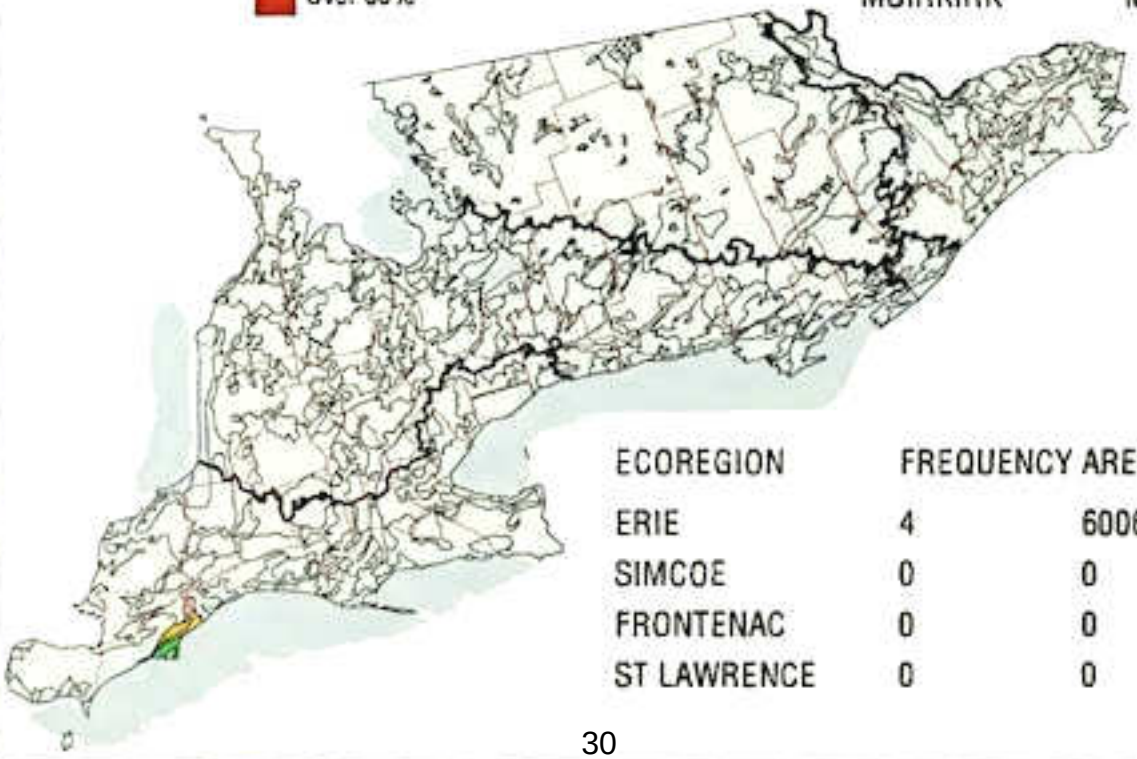
ECOREGION	FREQUENCY	AREA (ha)
ERIE	4	6248
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : KINTYRE

SERIES :

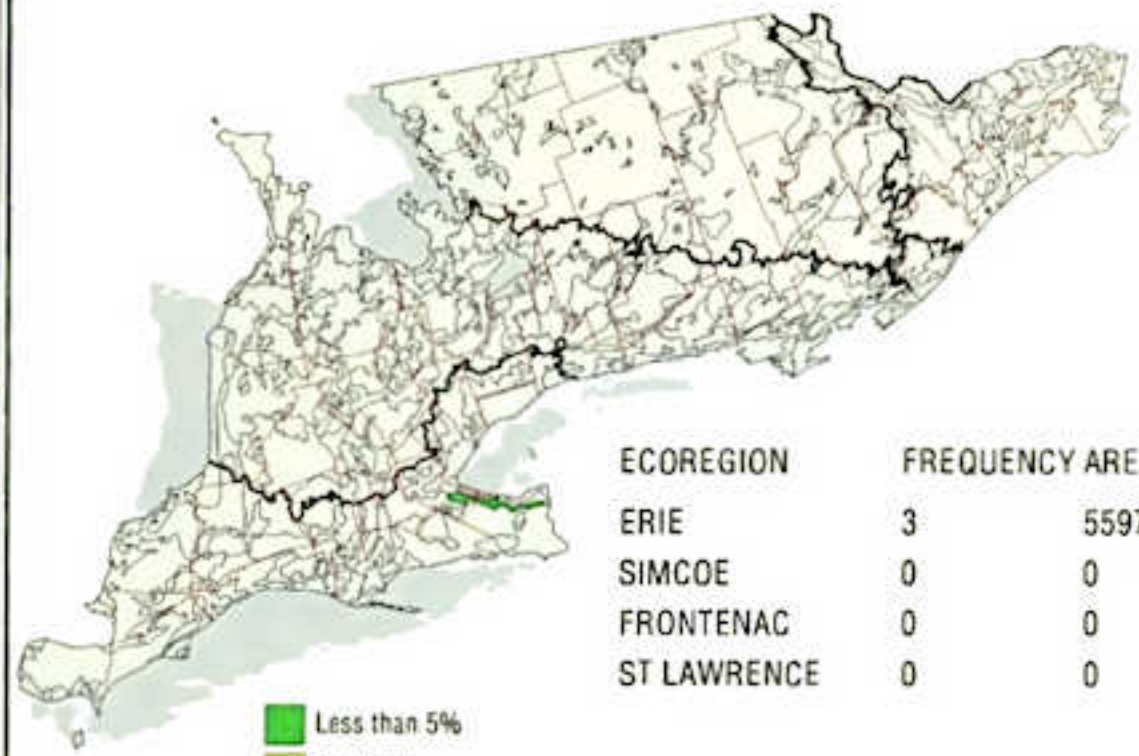
KINTYRE	KTY
HIGHGATE	HHG
MUIRKIRK	MKK



ECOREGION	FREQUENCY	AREA (ha)
ERIE	4	6006
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : WILSONVILLE

SERIES : WILSONVILLE WIL

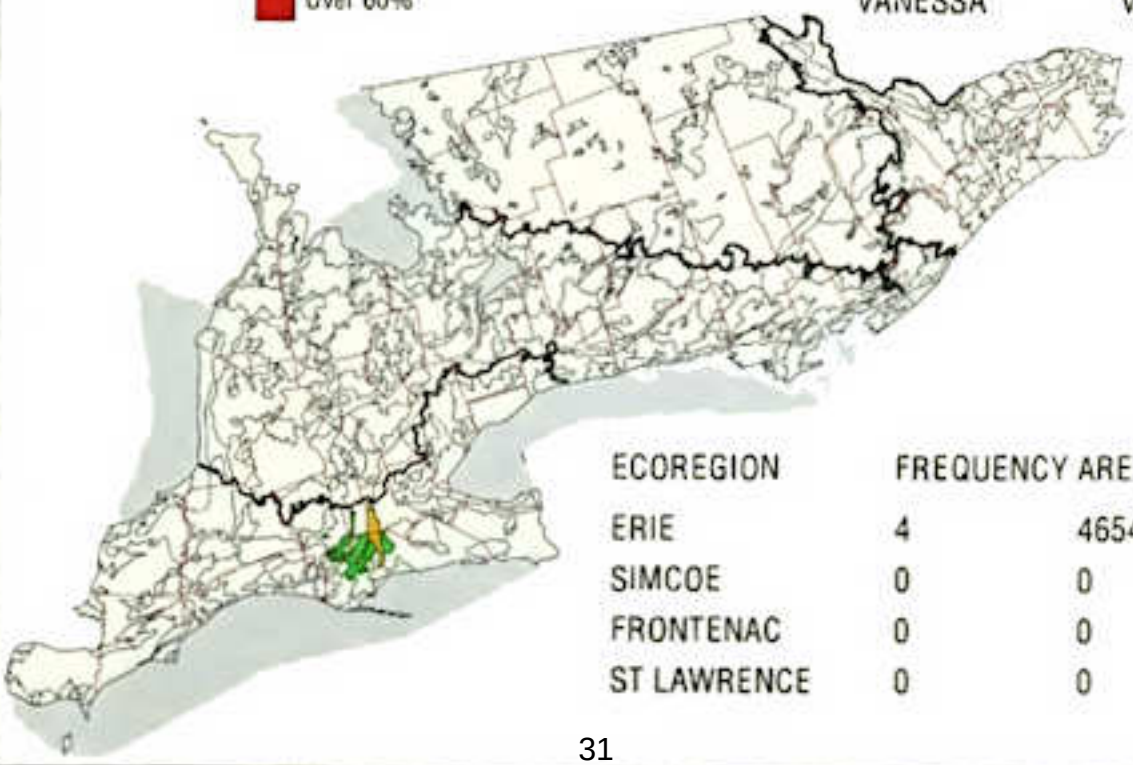


ECOREGION	FREQUENCY	AREA (ha)
ERIE	3	5597
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : SCOTLAND

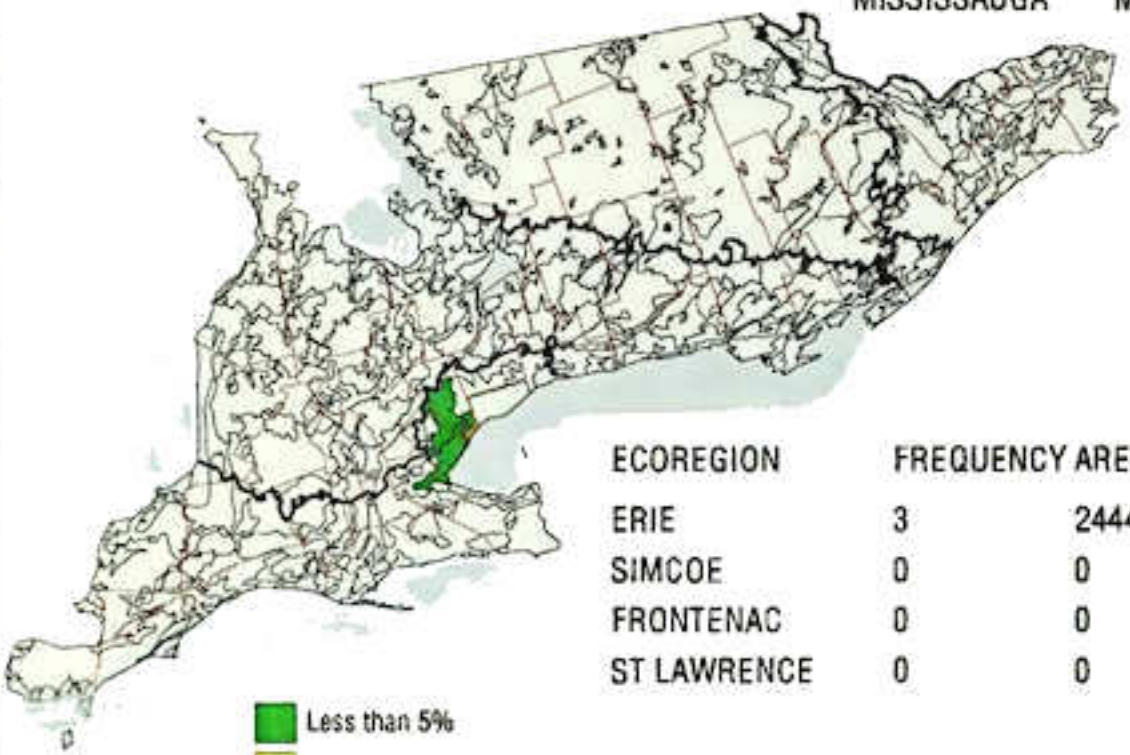
SERIES : SCOTLAND STD
OAKLAND OKL
VANESSA VSS



ECOREGION	FREQUENCY	AREA (ha)
ERIE	4	4654
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : BROCKPORT

SERIES : BROCKPORT BKP
COOKSVILLE CKV
MISSISSAUGA MSP

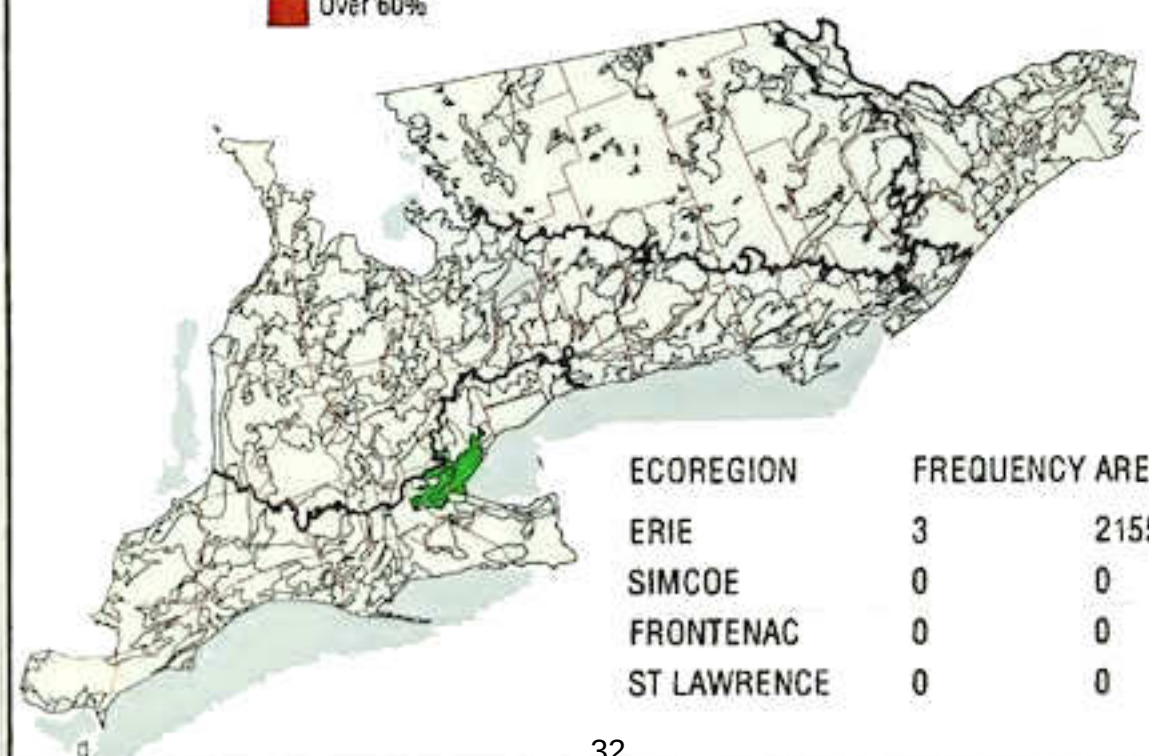


ECOREGION	FREQUENCY	AREA (ha)
ERIE	3	2444
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : SPRINGVALE

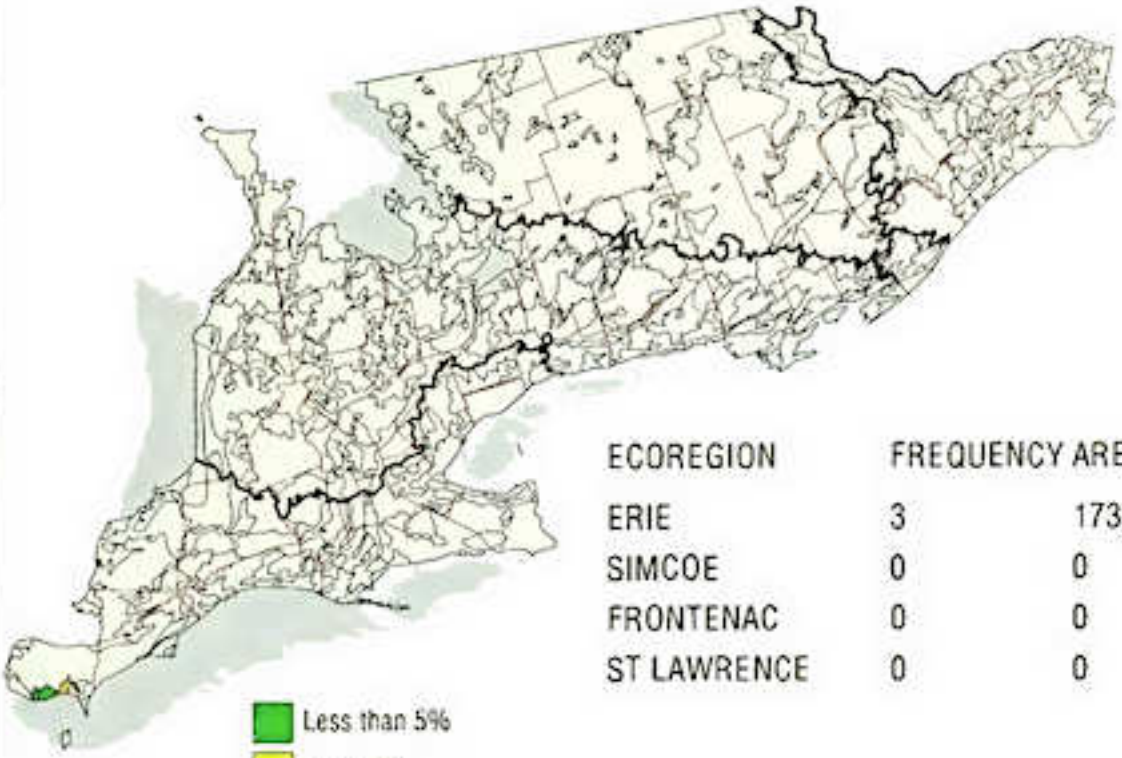
SERIES : SPRINGVALE SRI



ECOREGION	FREQUENCY	AREA (ha)
ERIE	3	2155
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : HARROW

SERIES : HARROW HRW

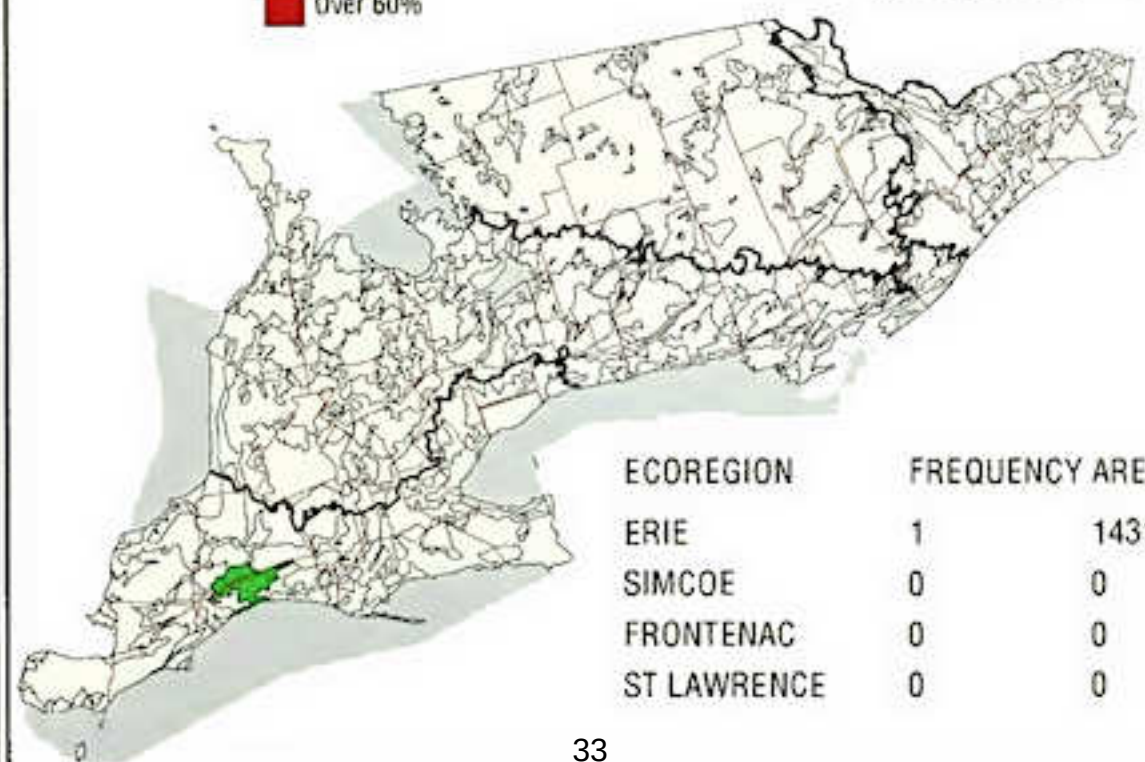


ECOREGION	FREQUENCY	AREA (ha)
ERIE	3	1732
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : SHEDDEN

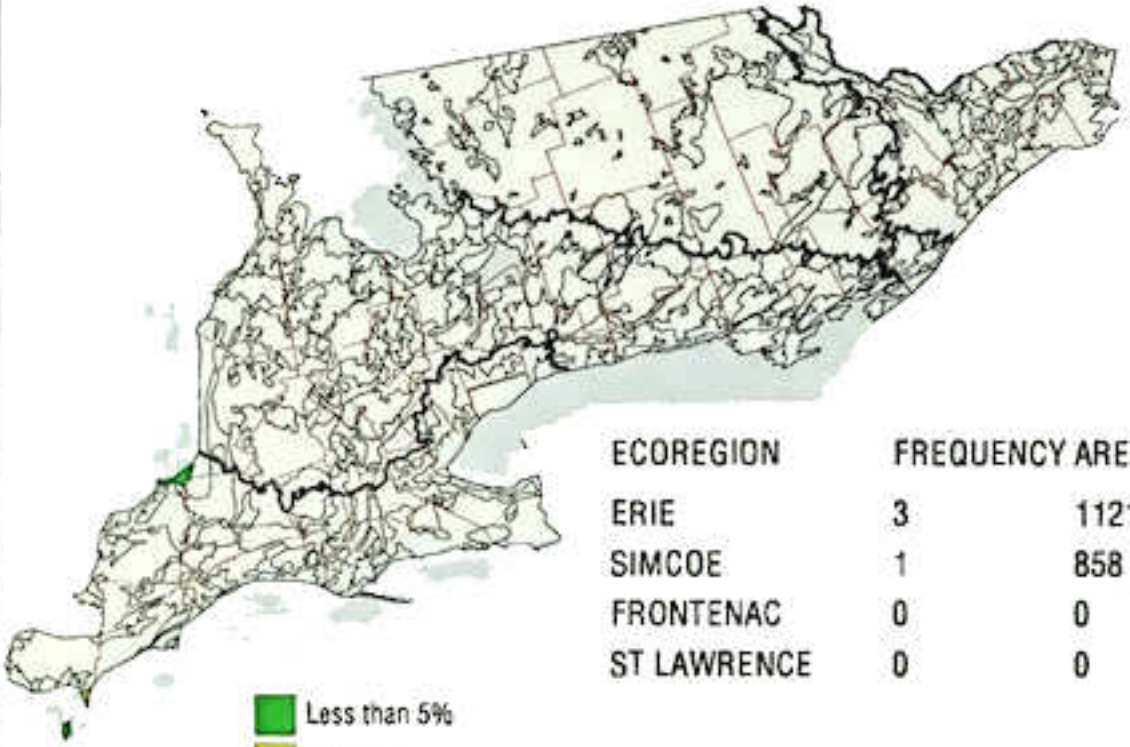
SERIES : SHEDDEN SDD
MIDDLEMARCH MDM



ECOREGION	FREQUENCY	AREA (ha)
ERIE	1	1431
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : EASTPORT

SERIES : EASTPORT ETP

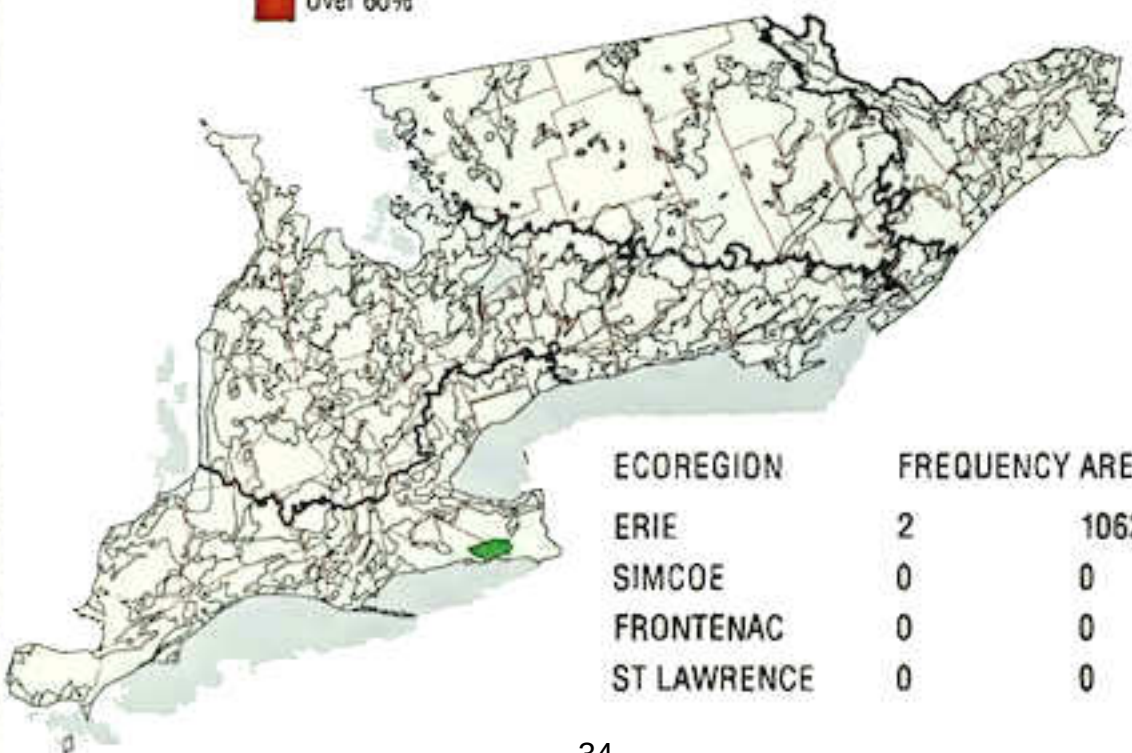


ECOREGION	FREQUENCY	AREA (ha)
ERIE	3	1121
SIMCOE	1	858
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : LOWBANKS

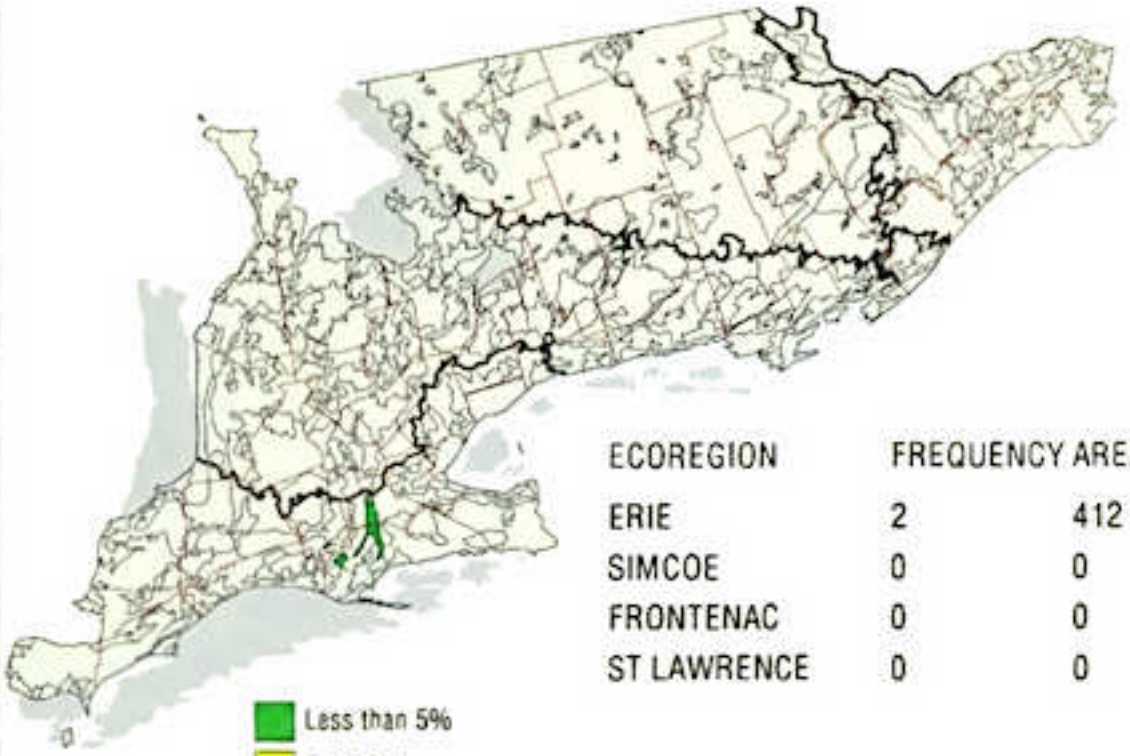
SERIES : LOWBANKS LOW



ECOREGION	FREQUENCY	AREA (ha)
ERIE	2	1062
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : HAMPDEN

SERIES : HAMPDEN HMP

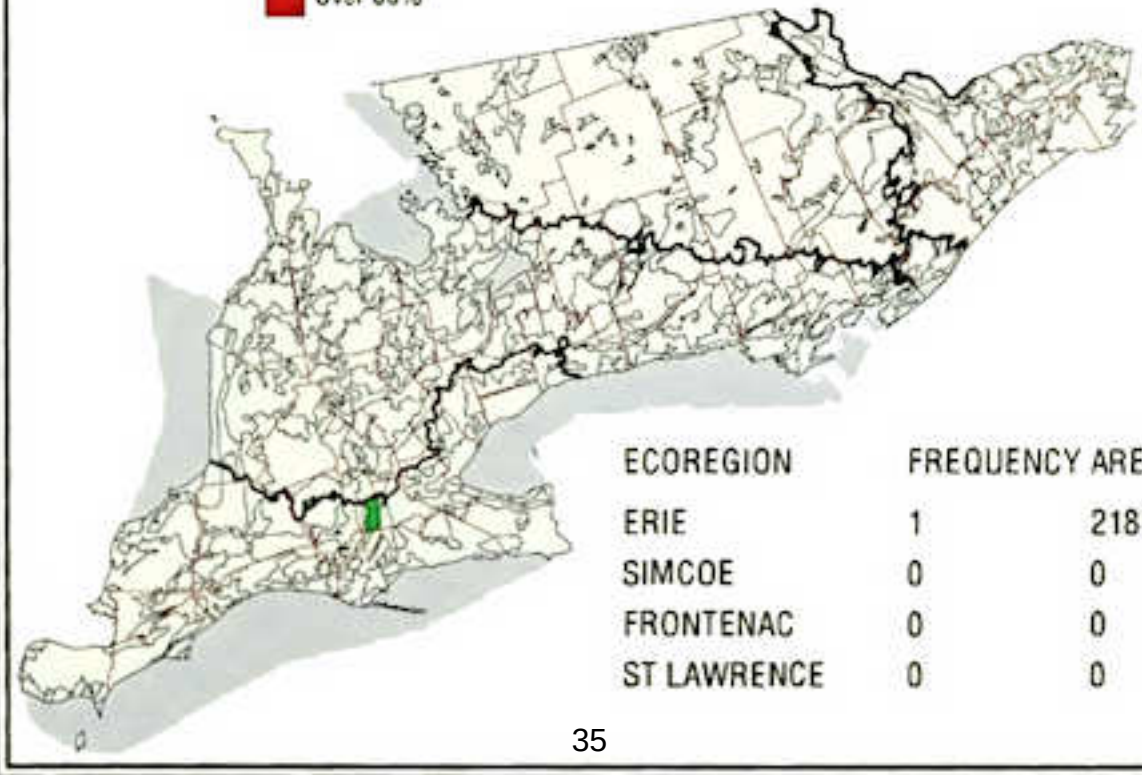


ECOREGION	FREQUENCY	AREA (ha)
ERIE	2	412
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : STYX

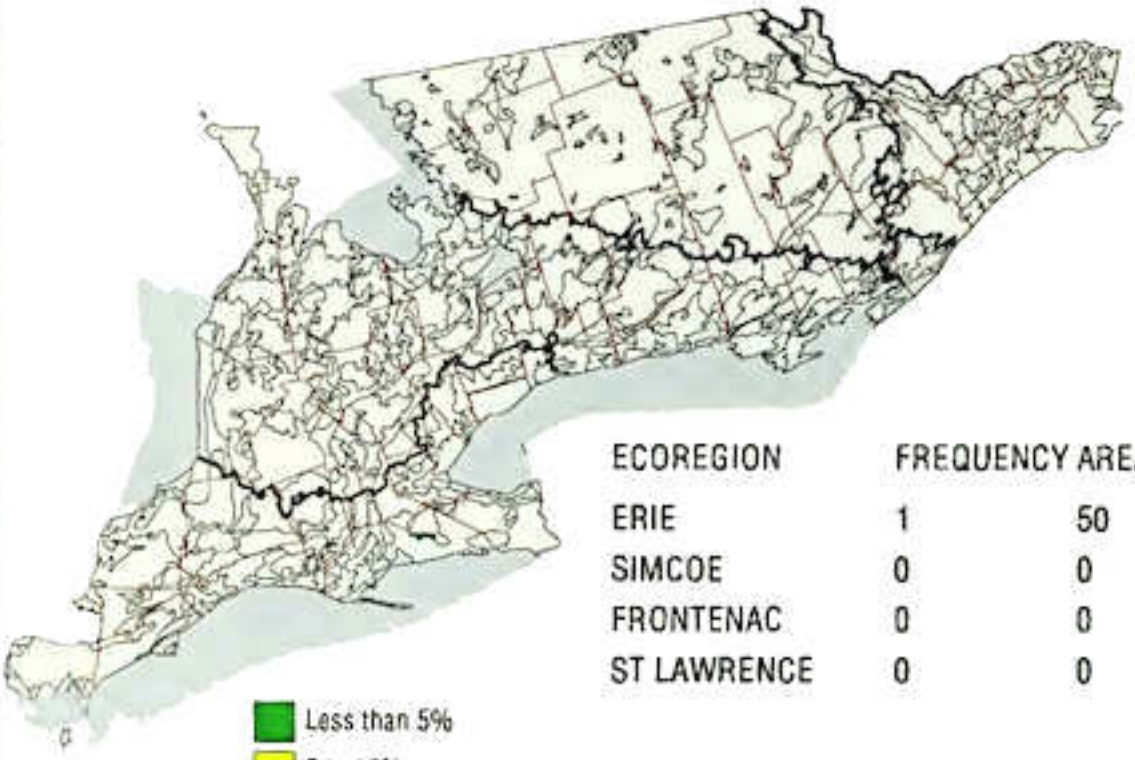
SERIES : STYX SYX



ECOREGION	FREQUENCY	AREA (ha)
ERIE	1	218
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : SENECA

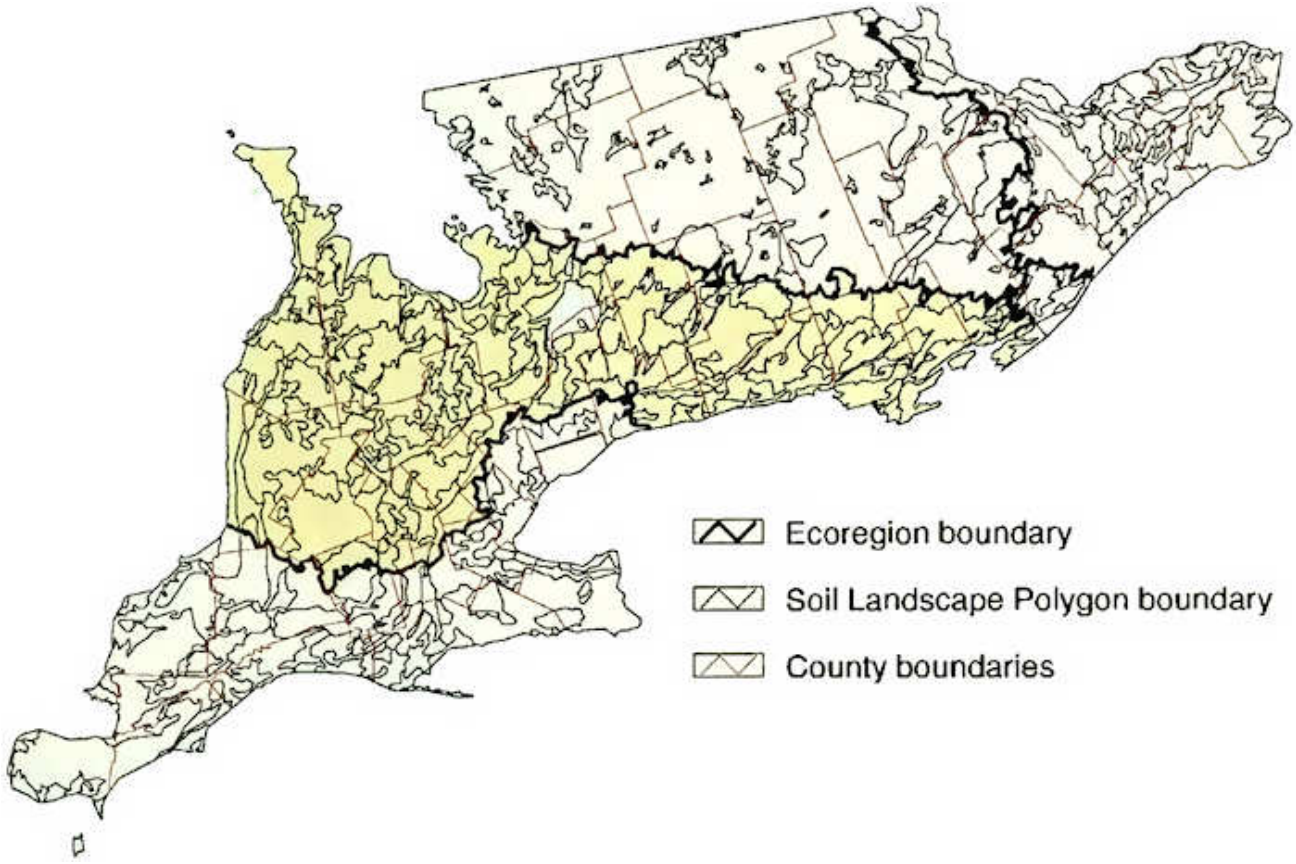
SERIES : SENECA SNA



ECOREGION	FREQUENCY	AREA (ha)
ERIE	1	50
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

5.2 Maps of Manitoulin - Lake Simcoe Ecoregion



Soil catenae:

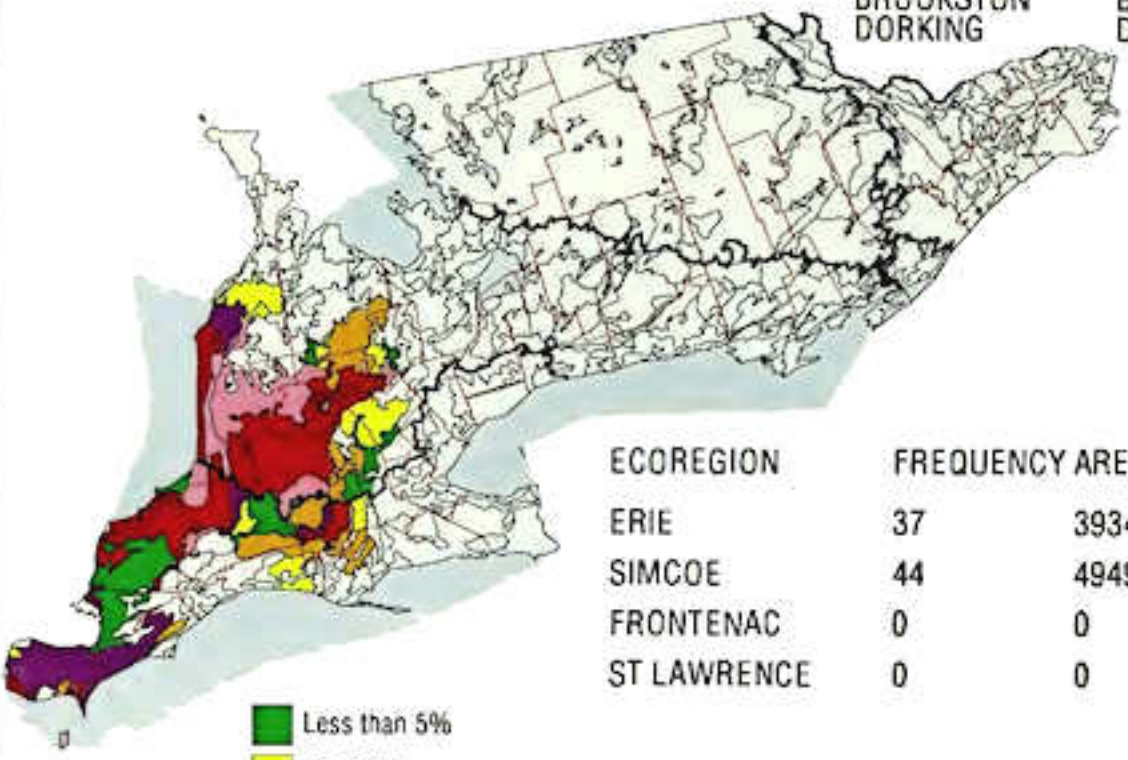
Athol	Breypen	Brighton*	Bondhead*	Bridgman	Burford*
Caledon*	Cramahe	Colborne	Darlington*	Deloro	Donnybrook
Dumfries*	Dunedin	Dundonald	Gananoque*	Grand	Guelph*
Harkaway	Harriston	Hillier	Hillsburgh	Huron*	King*
Lisbon	Lockport*	Mannheim	Medonte	Minesing	Newcastle
Norham	Otonabee	Percy	Pontypool *	St. Jacobs	Sargent
Saugeen	Schomberg*	Seeleys Bay*	South Bay	Teeswater*	Tioga
Vasey	Vincent	Waterloo	Waupoos	Wendigo	Wooler
Woolwich					

* denotes soil catena also found in other ecoregions.

CATENA : HURON

SERIES :

HURON	HUO
PERTH	PTH
BROOKSTON	BKN
DORKING	DKG



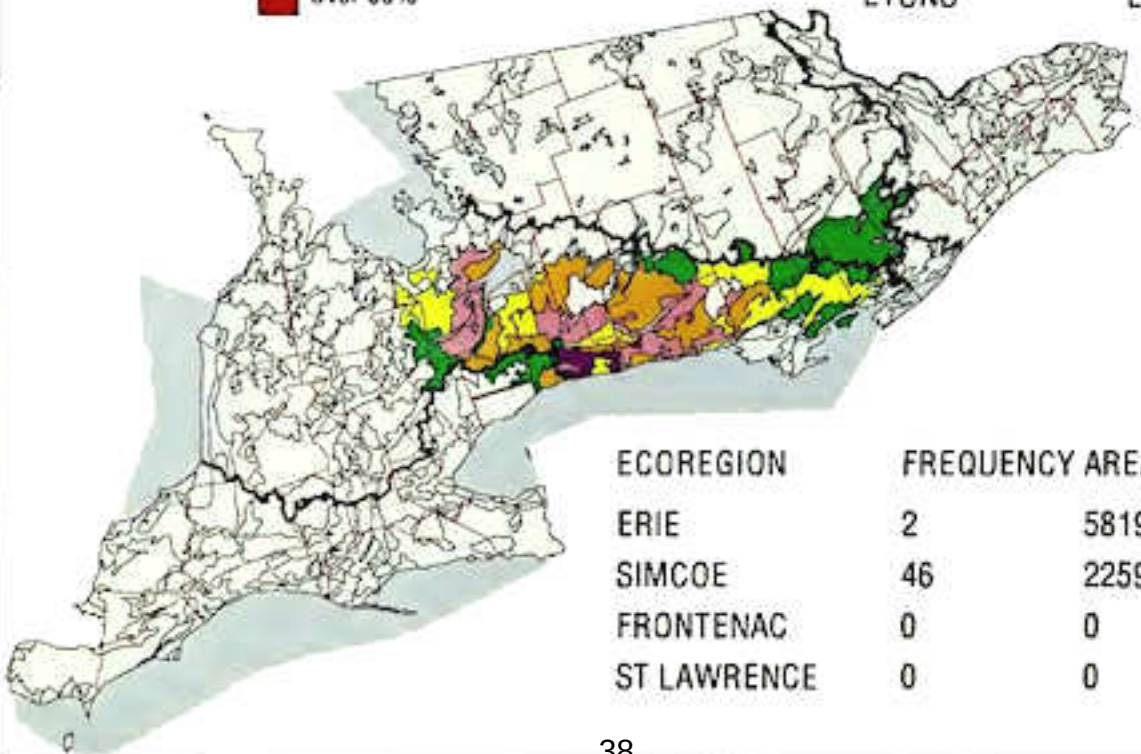
ECOREGION	FREQUENCY	AREA (ha)
ERIE	37	393407
SIMCOE	44	494953
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : BONDHEAD

SERIES :

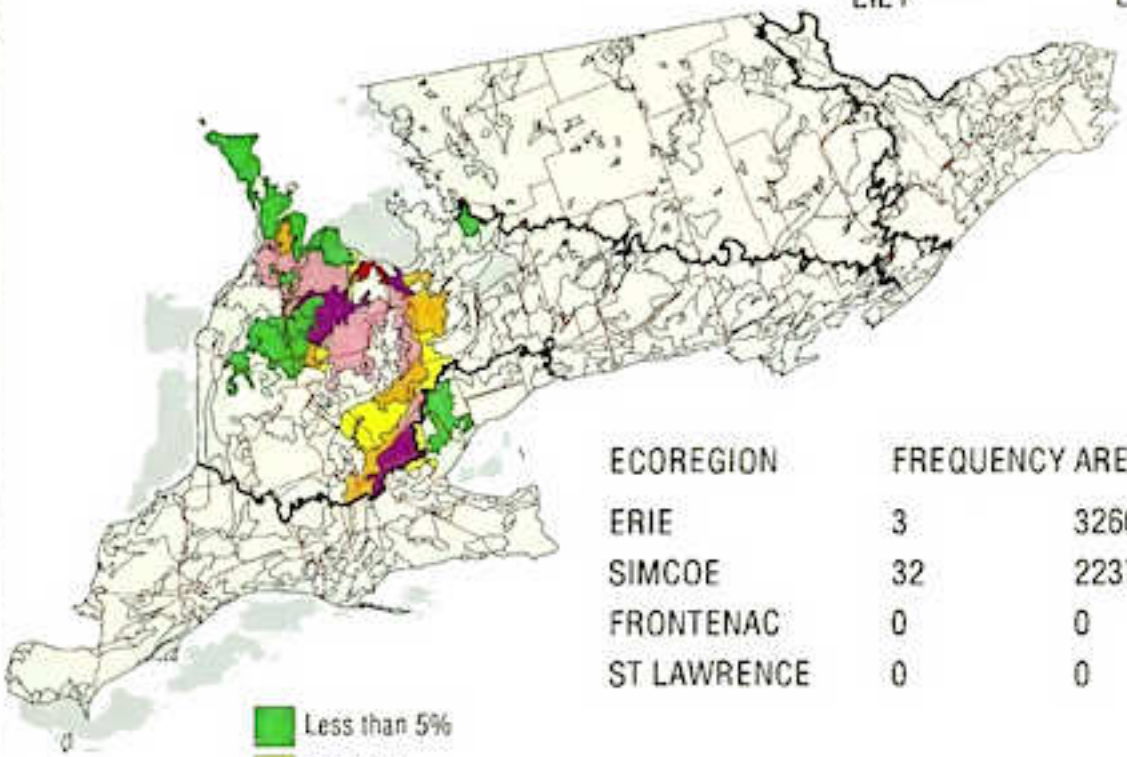
BONDHEAD	BDH
GUERIN	GUR
LYONS	LYS



ECOREGION	FREQUENCY	AREA (ha)
ERIE	2	5819
SIMCOE	46	225909
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : DUMFRIES

SERIES :		
	DUMFRIES	DUF
	KILLEAN	KIL
	LILY	LIY

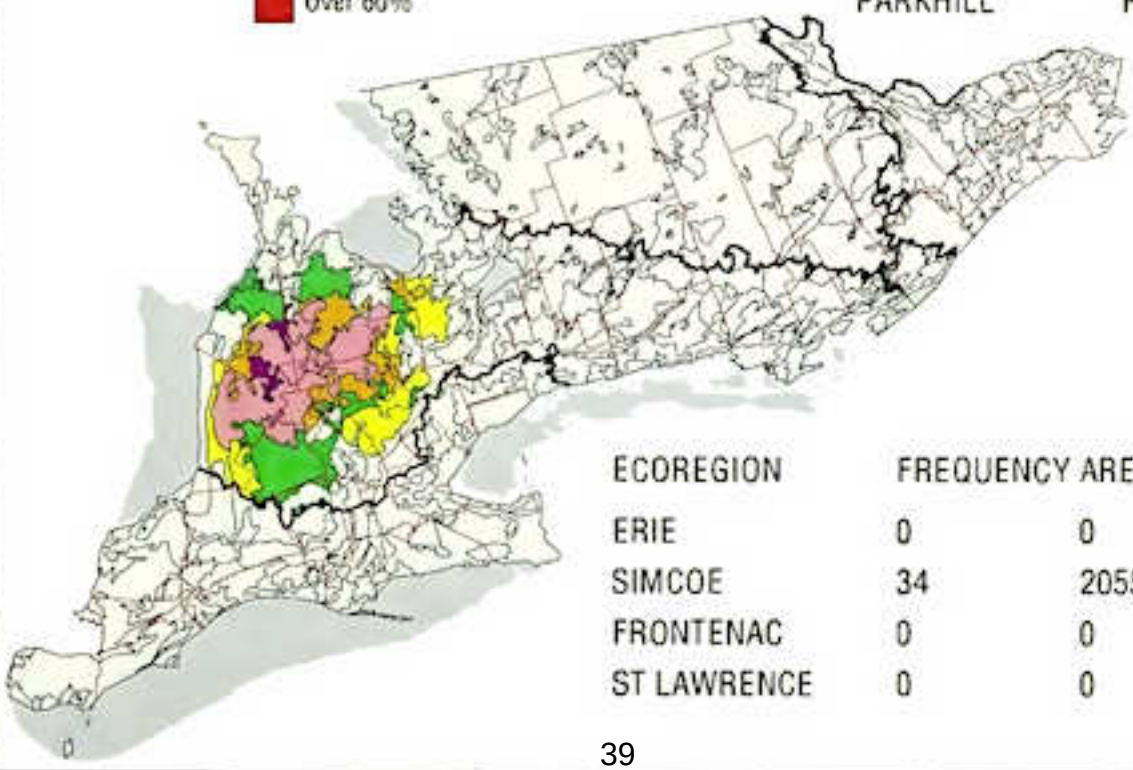


ECOREGION	FREQUENCY	AREA (ha)
ERIE	3	3260
SIMCOE	32	223709
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : HARRISTON

SERIES :		
	HARRISTON	HRR
	LISTOWEL	LTW
	PARKHILL	PLL

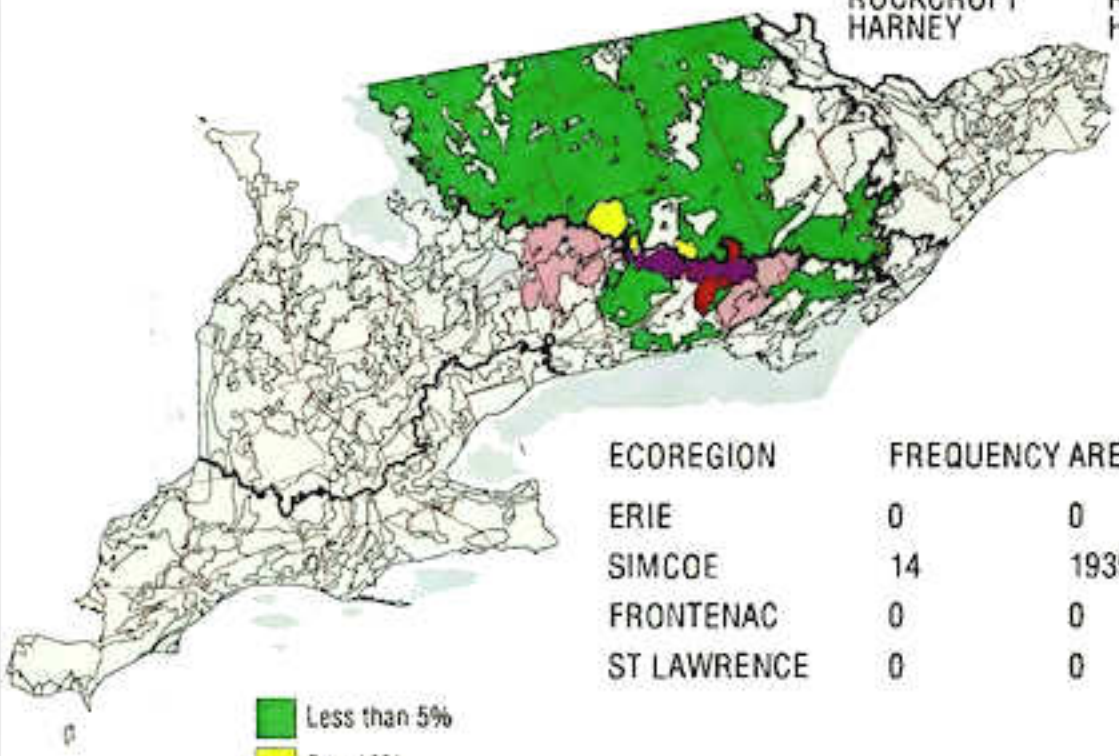


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	34	205518
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : DELORO

SERIES :

DELORO	DLO
DUMMER	DMM
ROCKCROFT	RKF
HARNEY	HEY



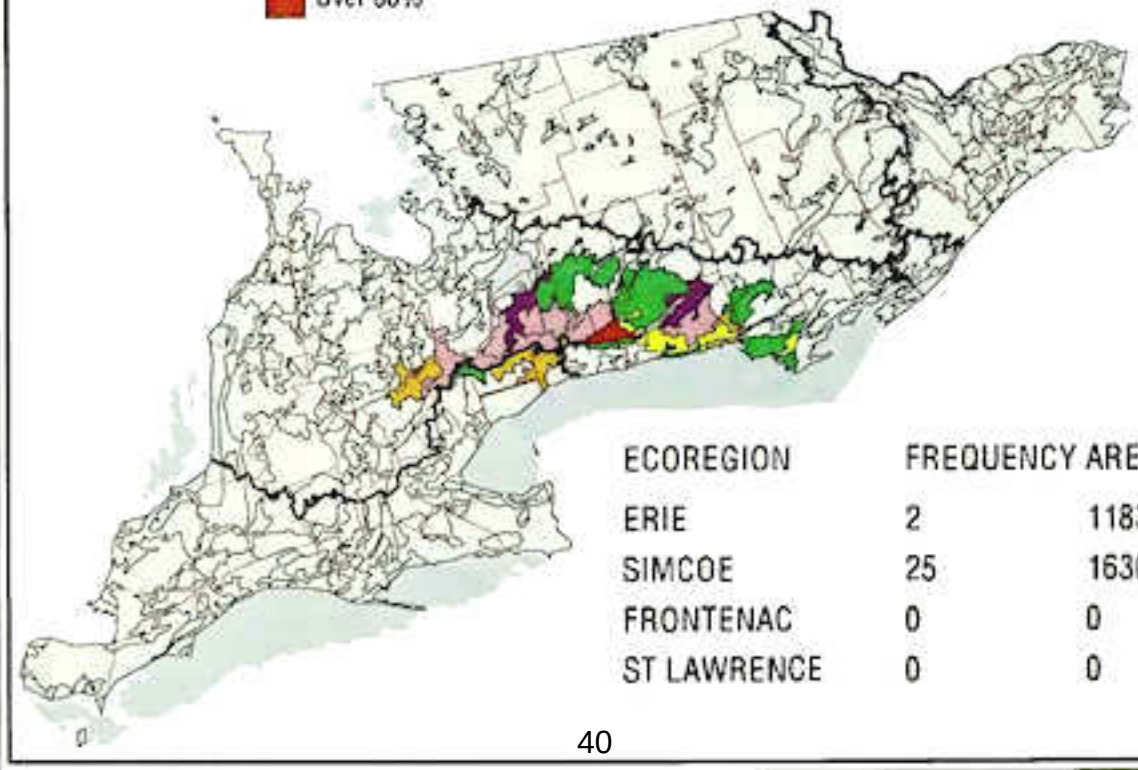
ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	14	193914
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : PONTYPOOL

SERIES :

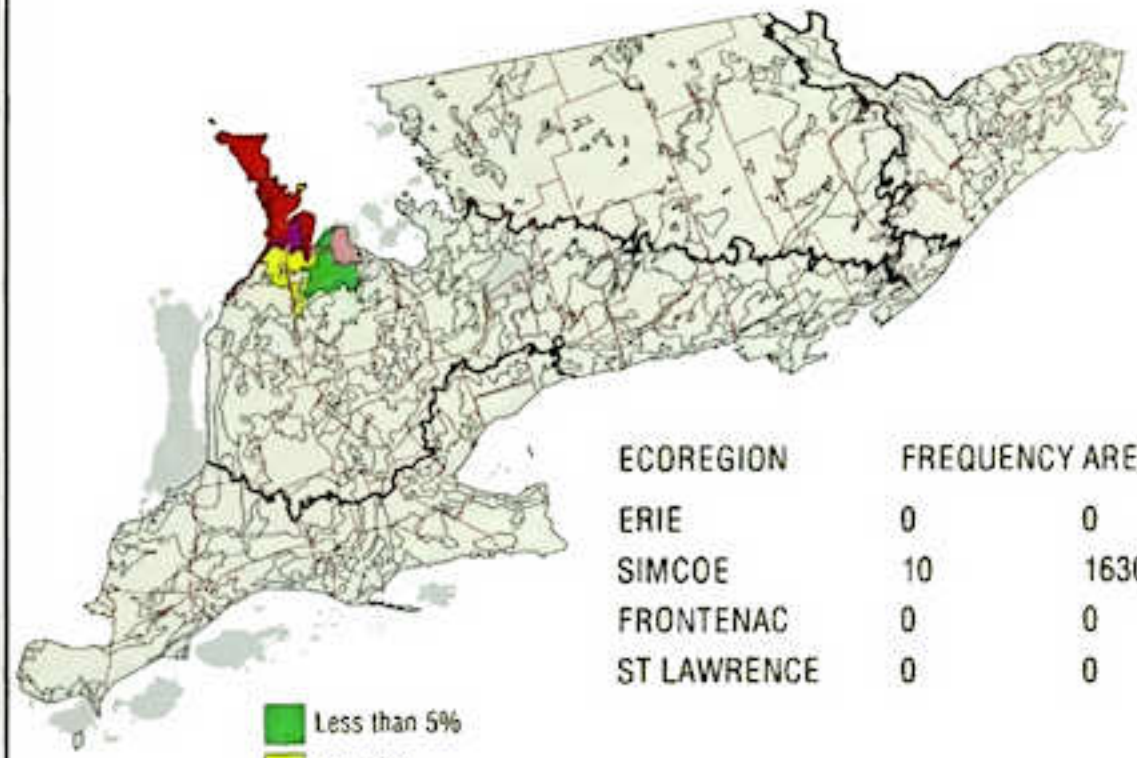
PONTYPOOL	PYO



ECOREGION	FREQUENCY	AREA (ha)
ERIE	2	11838
SIMCOE	25	163056
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : BREYPEN

SERIES : BREYPEN BPN

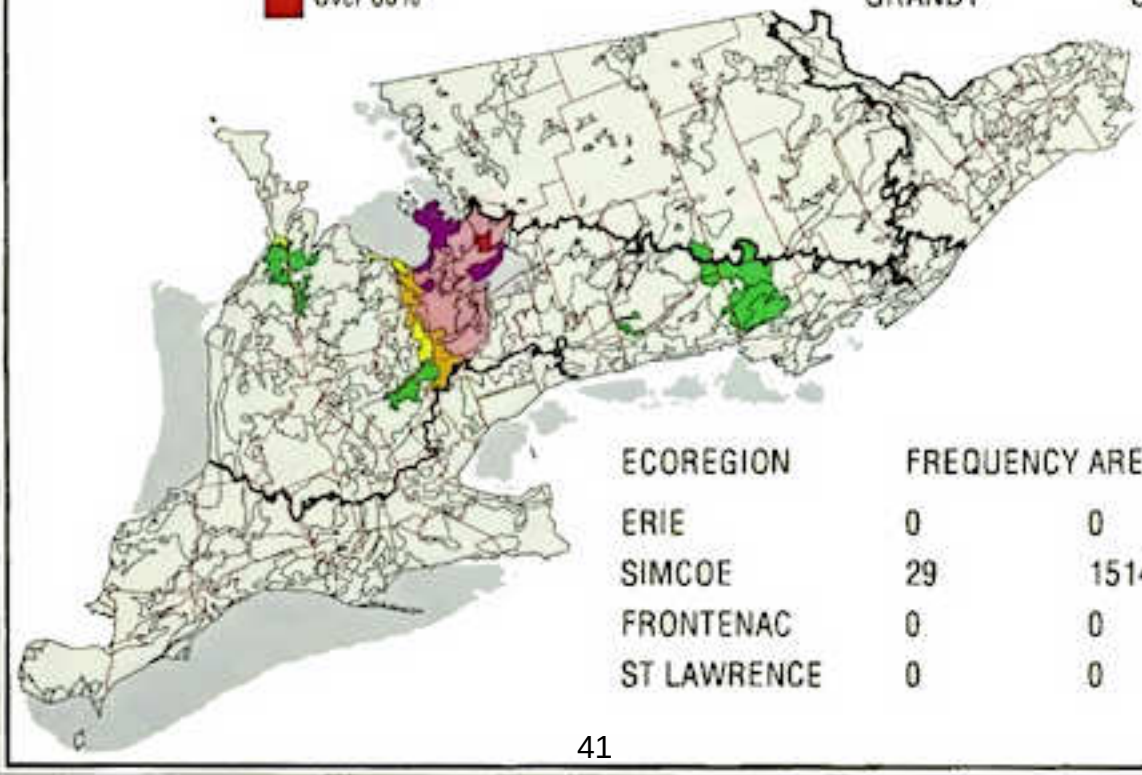


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	10	163025
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : TIOGA

SERIES : TIOGA TIG
ALLISTON ALT
GRANBY GNY

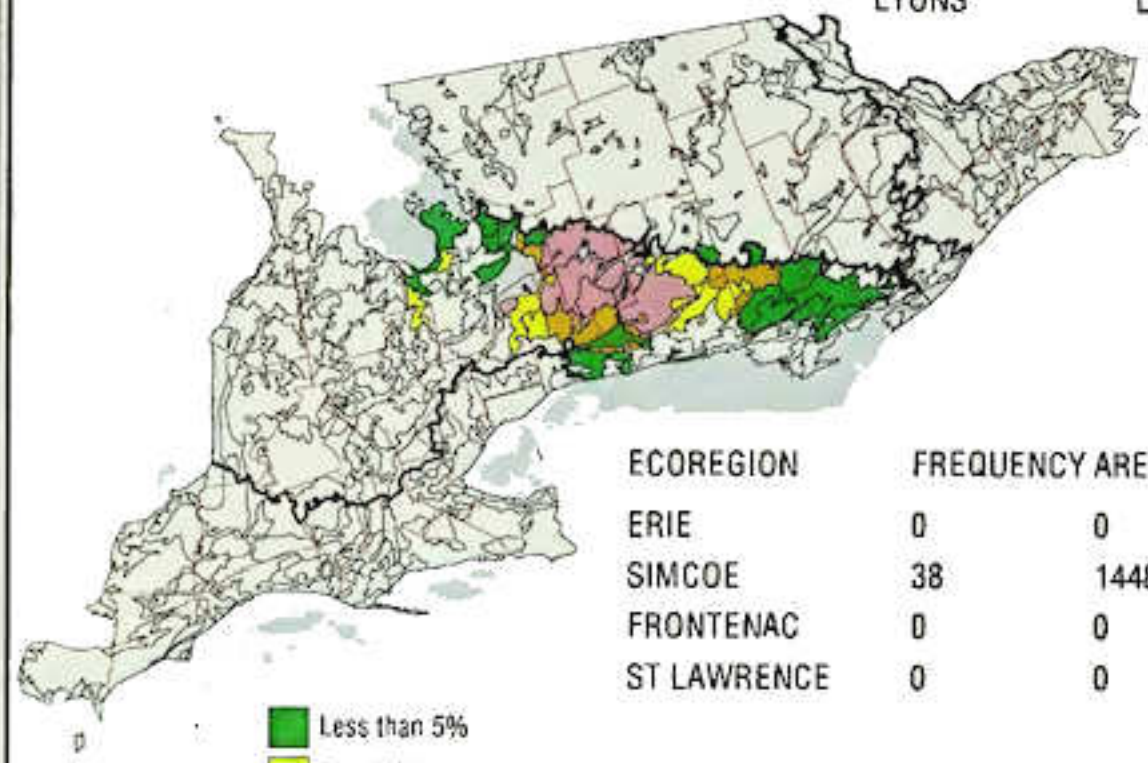


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	29	151440
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : OTONABEE

SERIES :

OTONABEE	OBE
EMILY	EMY
LYONS	LYS



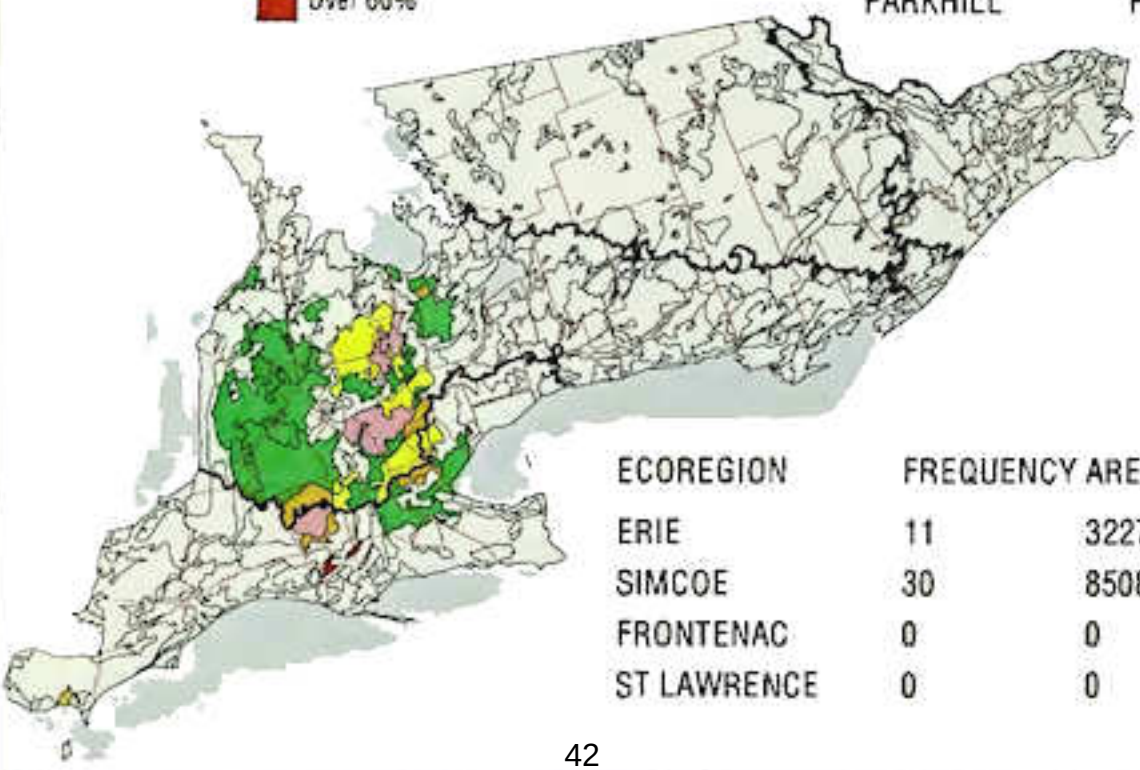
ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	38	144897
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : GUELPH

SERIES :

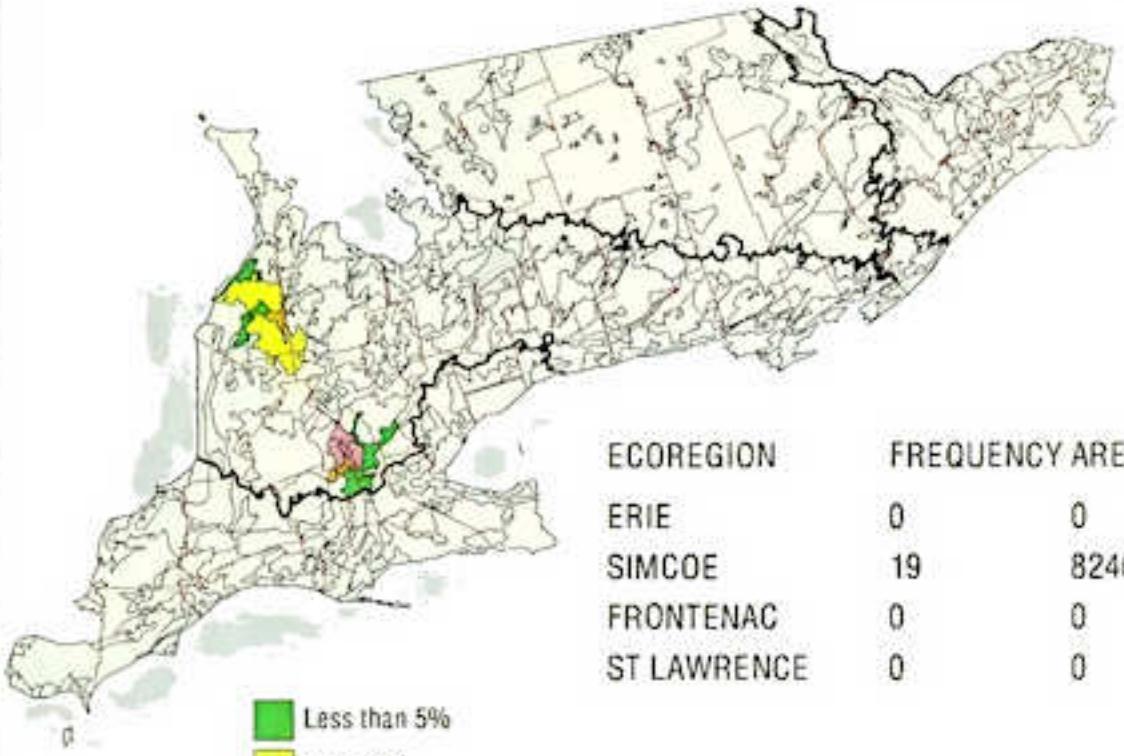
GUELPH	GUP
LONDON	LOD
PARKHILL	PLL



ECOREGION	FREQUENCY	AREA (ha)
ERIE	11	32273
SIMCOE	30	85087
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : WATERLOO

SERIES : WATERLOO WTO
HEIDELBERG HIG

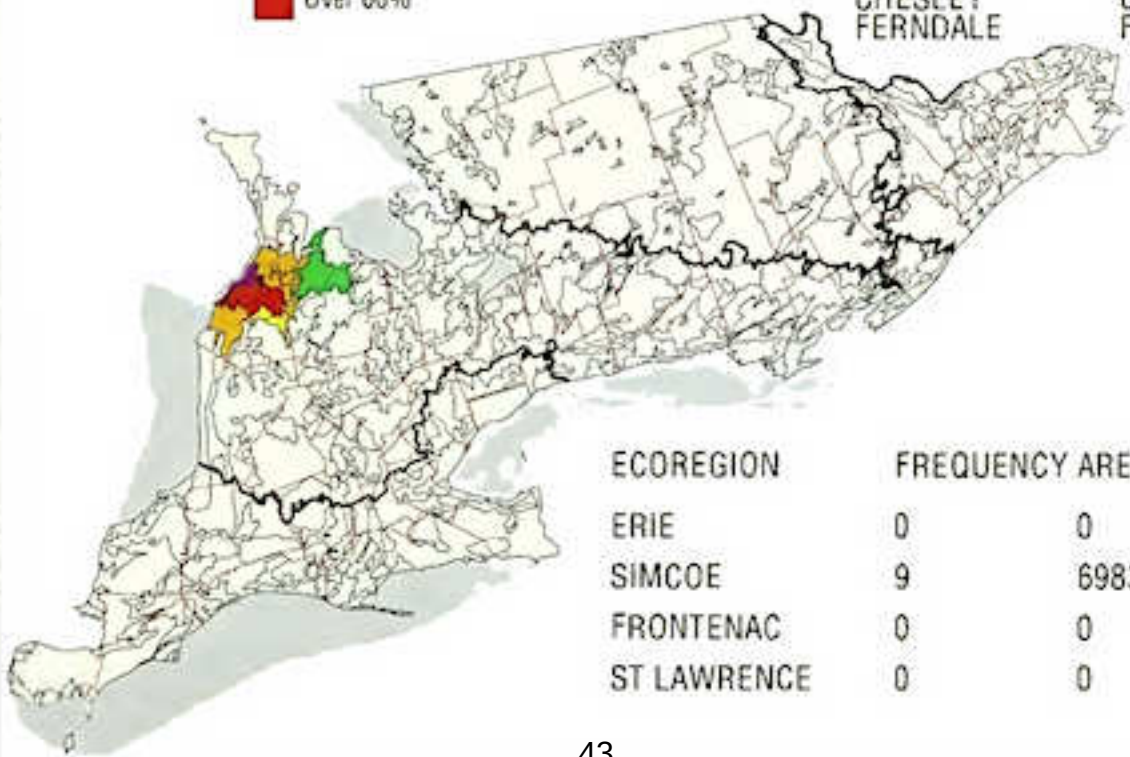


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	19	82465
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : SAUGEEN

SERIES : SAUGEEN SGE
ELDERSLIE EDS
CHESLEY CLY
FERNDALE FRD

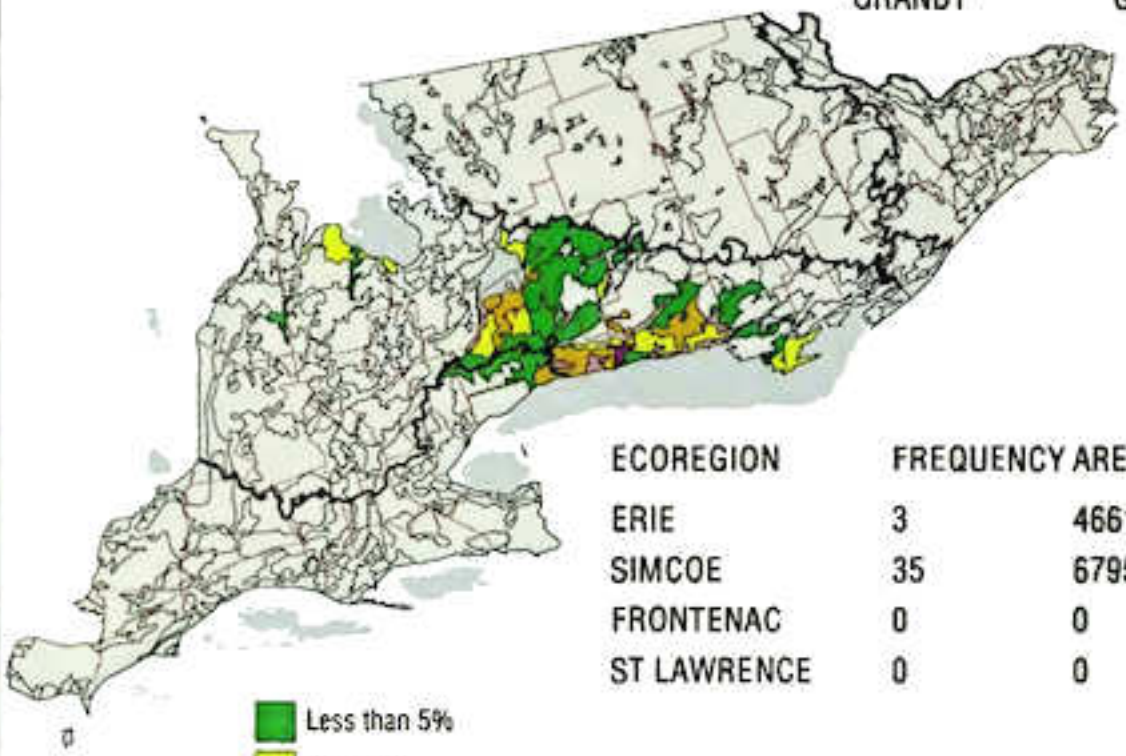


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	9	69839
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : BRIGHTON

SERIES :

BRIGHTON	BGH
TECUMSETH	TUH
GRANBY	GNY



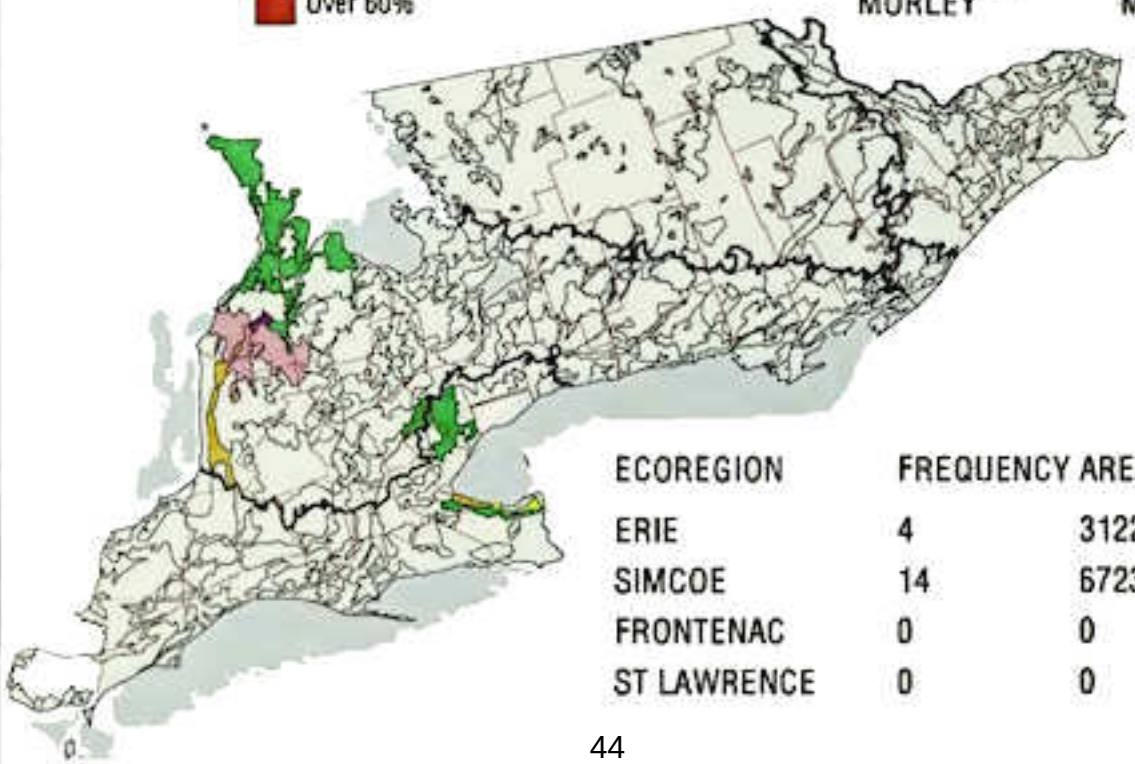
ECOREGION	FREQUENCY	AREA (ha)
ERIE	3	4661
SIMCOE	35	67950
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : LOCKPORT

SERIES :

LOCKPORT	LKP
TRAFALGAR	TFG
MORLEY	MOY

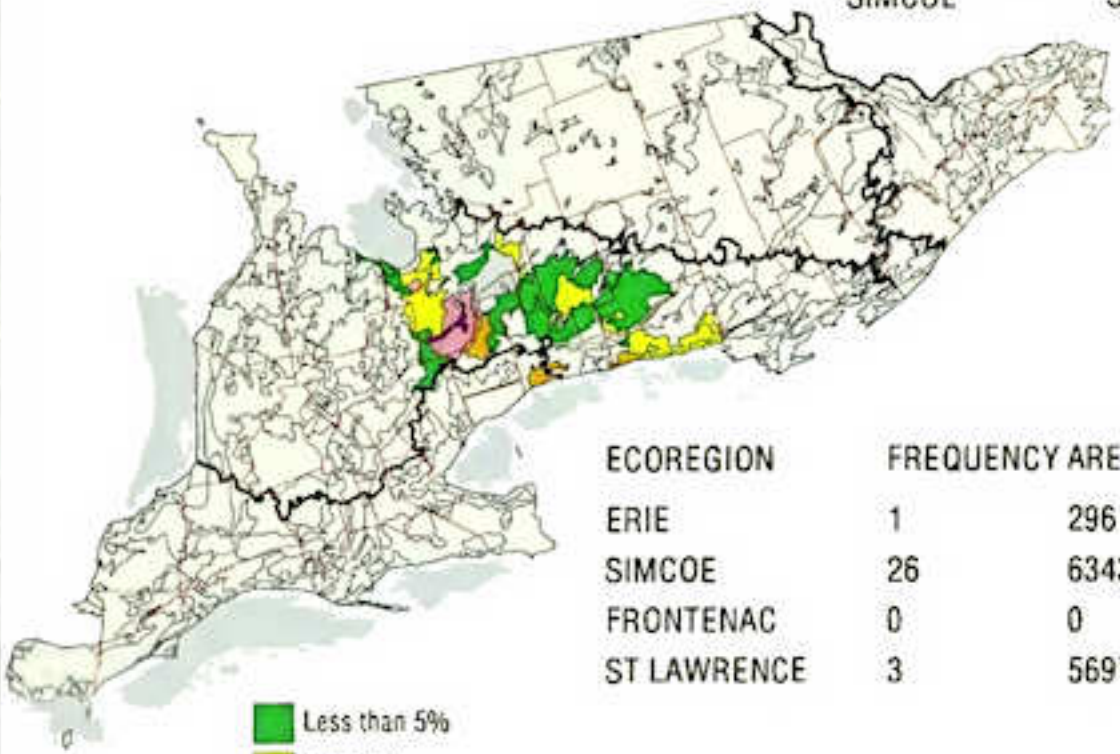


ECOREGION	FREQUENCY	AREA (ha)
ERIE	4	3122
SIMCOE	14	67232
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : SCHOMBERG

SERIES :

SCHOMBERG	SMG
SMITHFIELD	SMF
SIMCOE	SMC



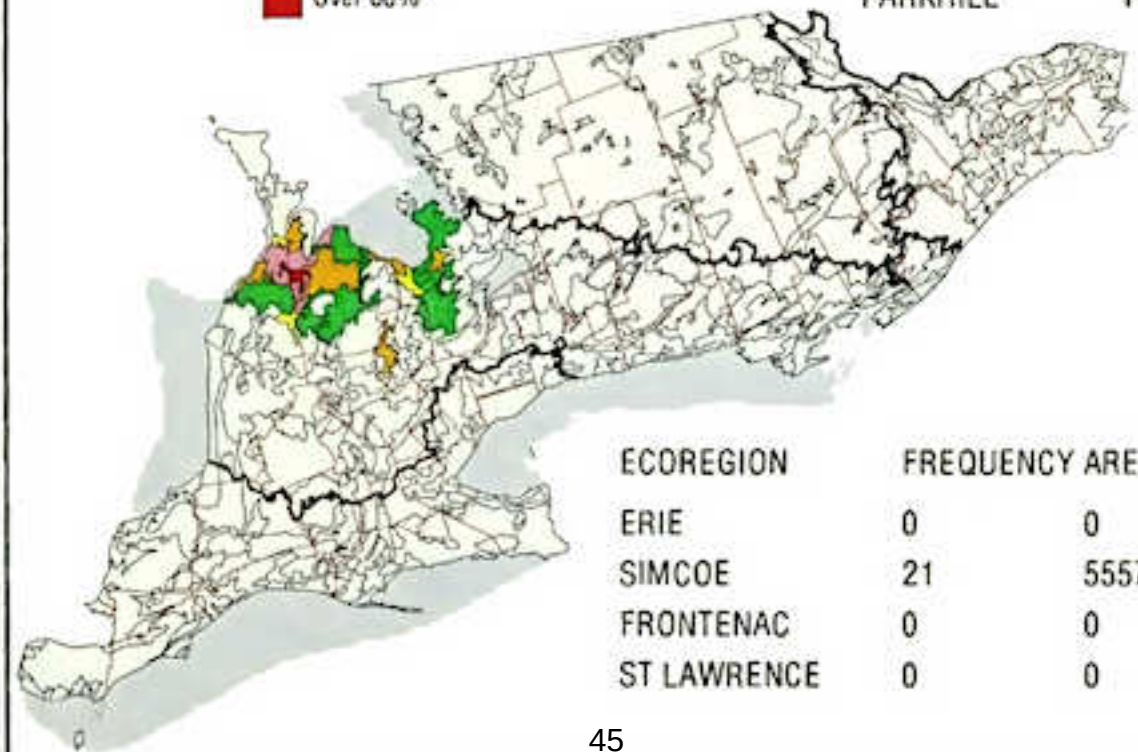
ECOREGION	FREQUENCY	AREA (ha)
ERIE	1	2961
SIMCOE	26	63434
FRONTENAC	0	0
ST LAWRENCE	3	5697

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : HARKAWAY

SERIES :

HARKAWAY	HKY
WIARTON	WIT
PARKHILL	PLL

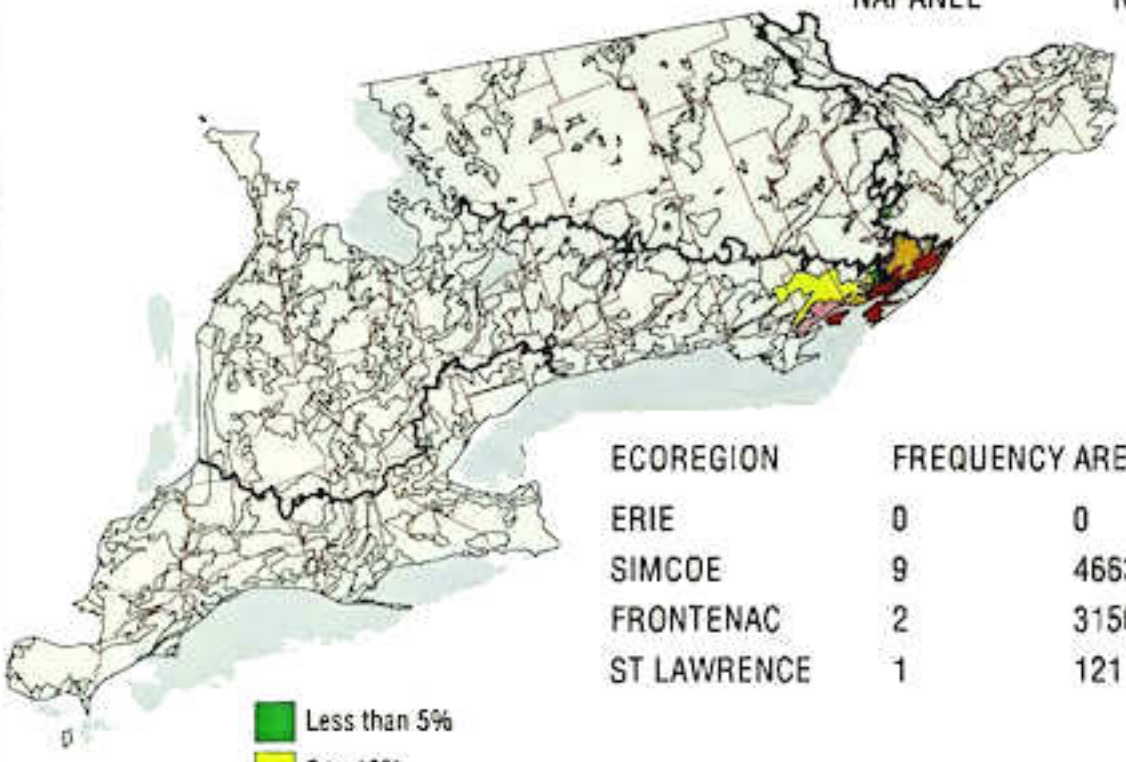


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	21	55579
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : GANANOQUE

SERIES :

GANANOQUE	GQU
LANSDOWNE	LDW
NAPANEE	NPE



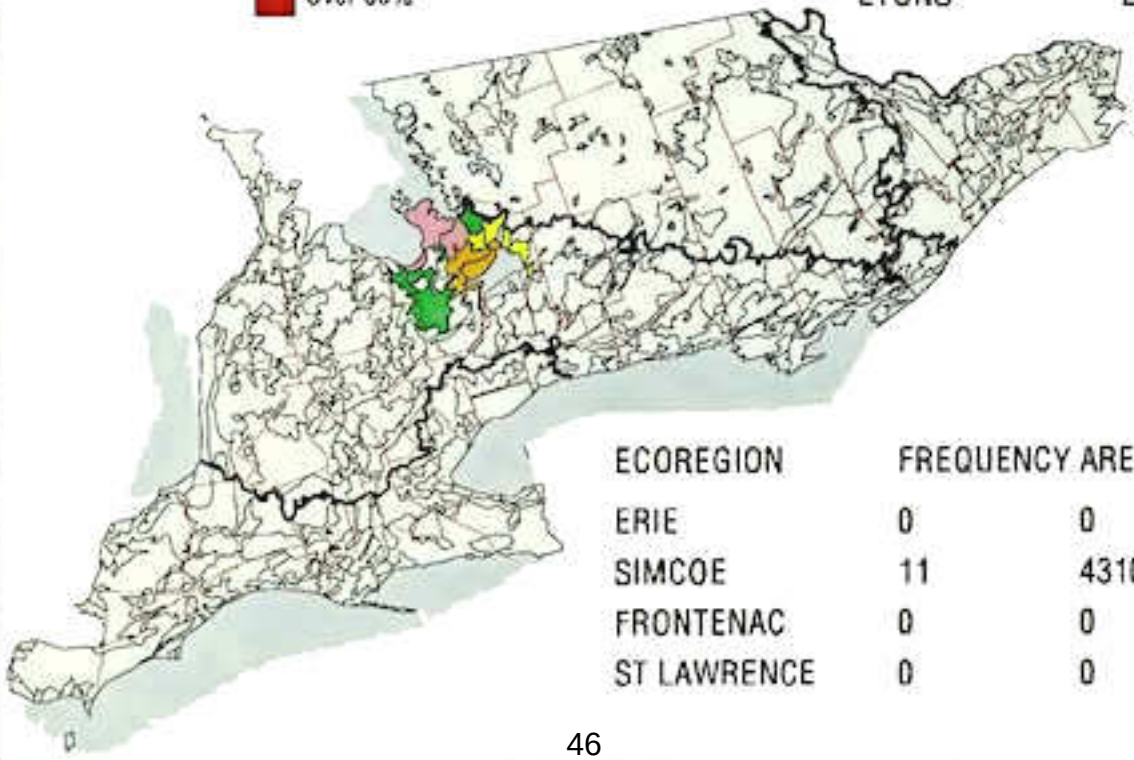
ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	9	46633
FRONTENAC	2	31505
ST LAWRENCE	1	121

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : VASEY

SERIES :

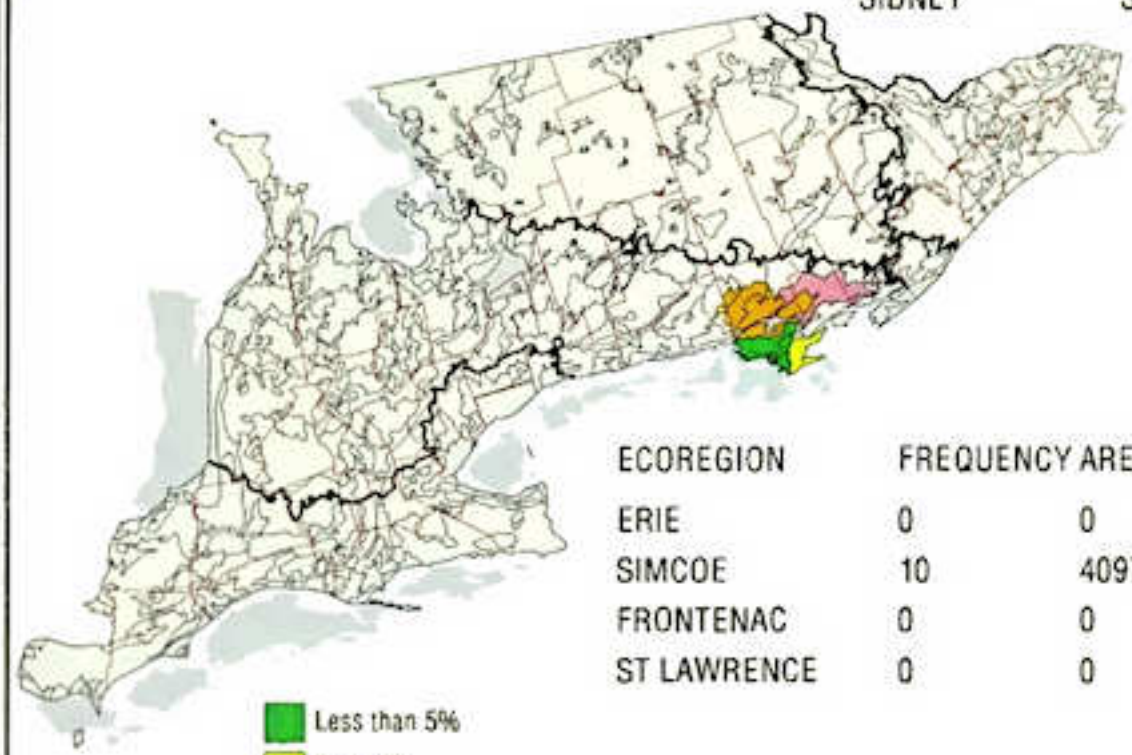
VASEY	VSY
HOWLAND	HWD
LYONS	LYS



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	11	43108
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : SOUTHBAY

SERIES : SOUTHBAY SHY
ELMBROOK EOK
SIDNEY SIY

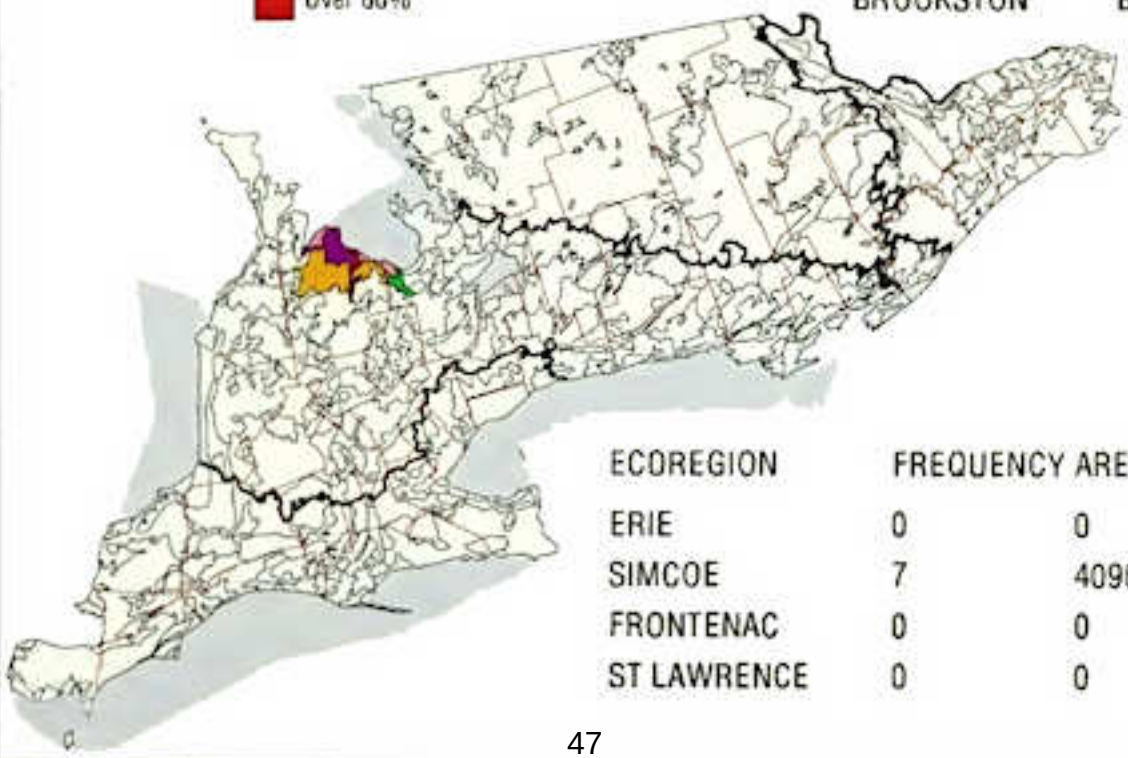


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	10	40970
FRONTENAC	0	0
ST LAWRENCE	0	0

Less than 5%
5 to 10%
10 to 20%
20 to 40%
40 to 60%
Over 60%

CATENA : VINCENT

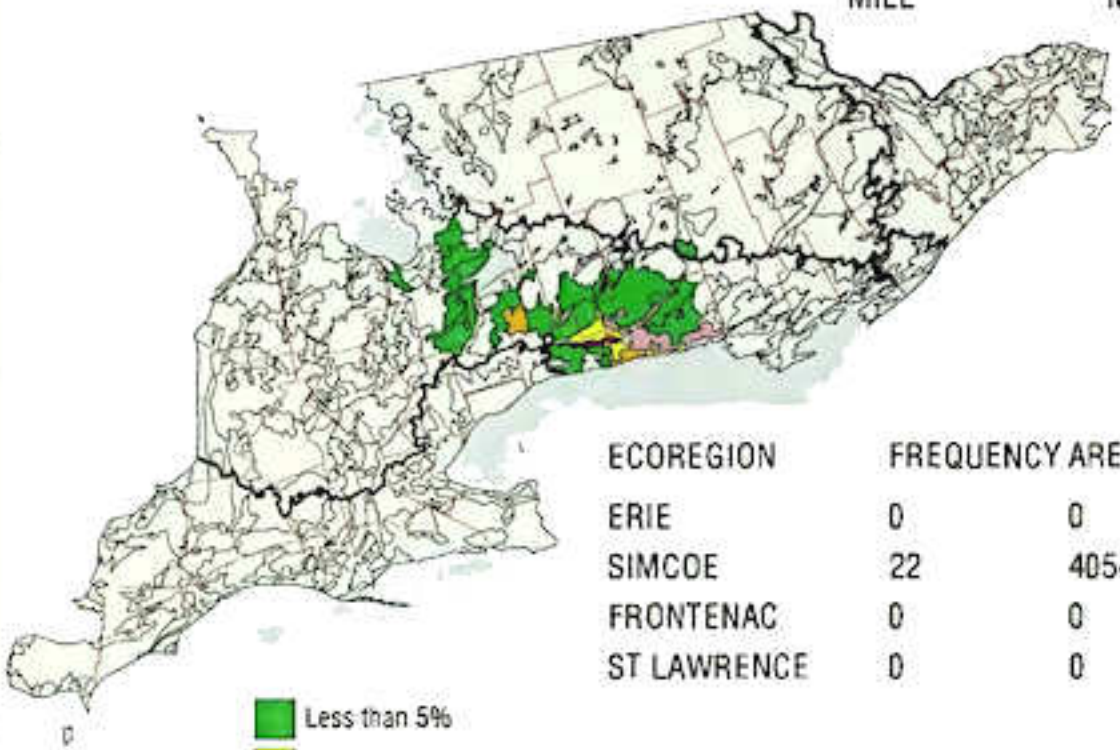
SERIES : VINCENT VCT
KEMBLE KMB
BROOKSTON BKN



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	7	40963
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : DUNDONALD

SERIES :		
	DUNDONALD	DUL
	EDENVALE	EDV
	MILL	MIL

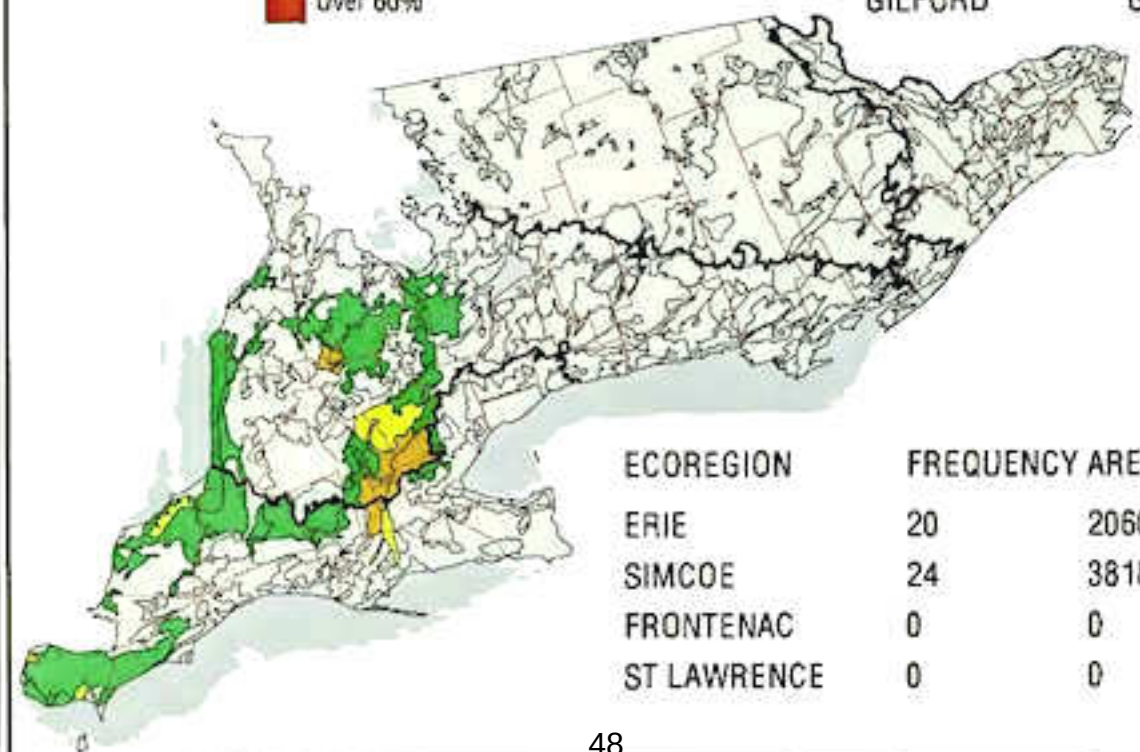


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	22	40543
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : BURFORD

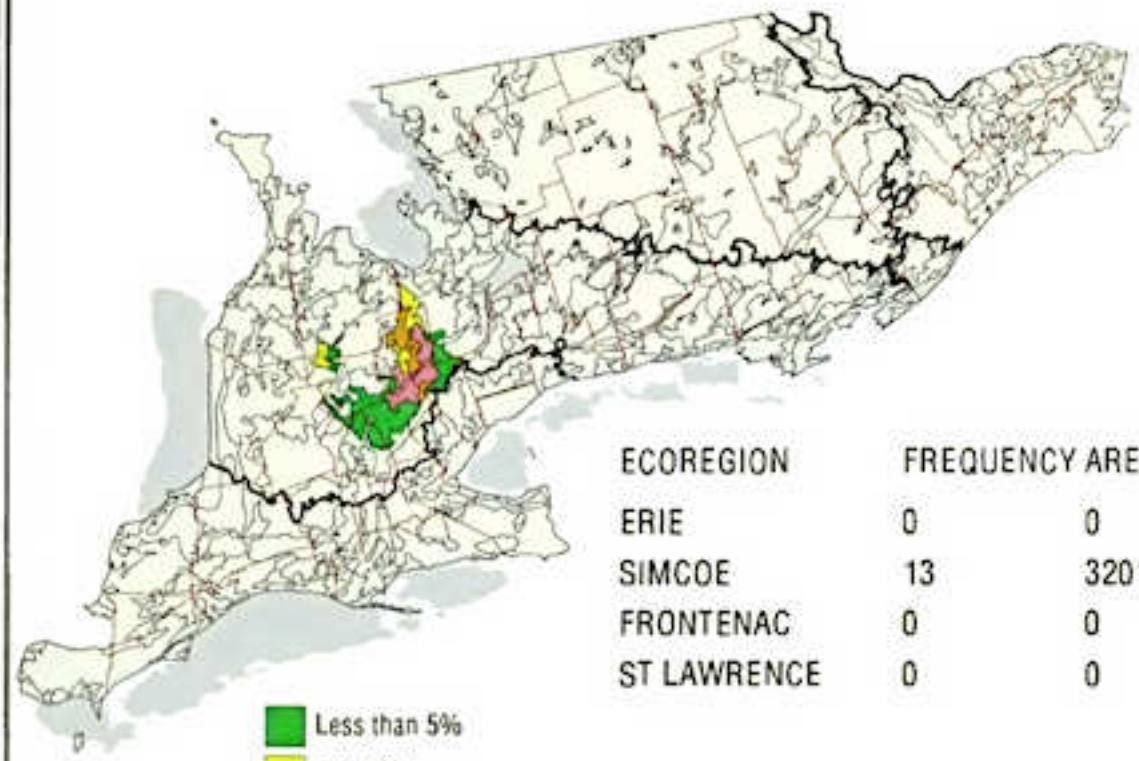
SERIES :		
	BURFORD	BUF
	BRISBANE	BSB
	GILFORD	GFD



ECOREGION	FREQUENCY	AREA (ha)
ERIE	20	20600
SIMCOE	24	38186
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : HILLSBURGH

SERIES : HILLSBURGH HLH

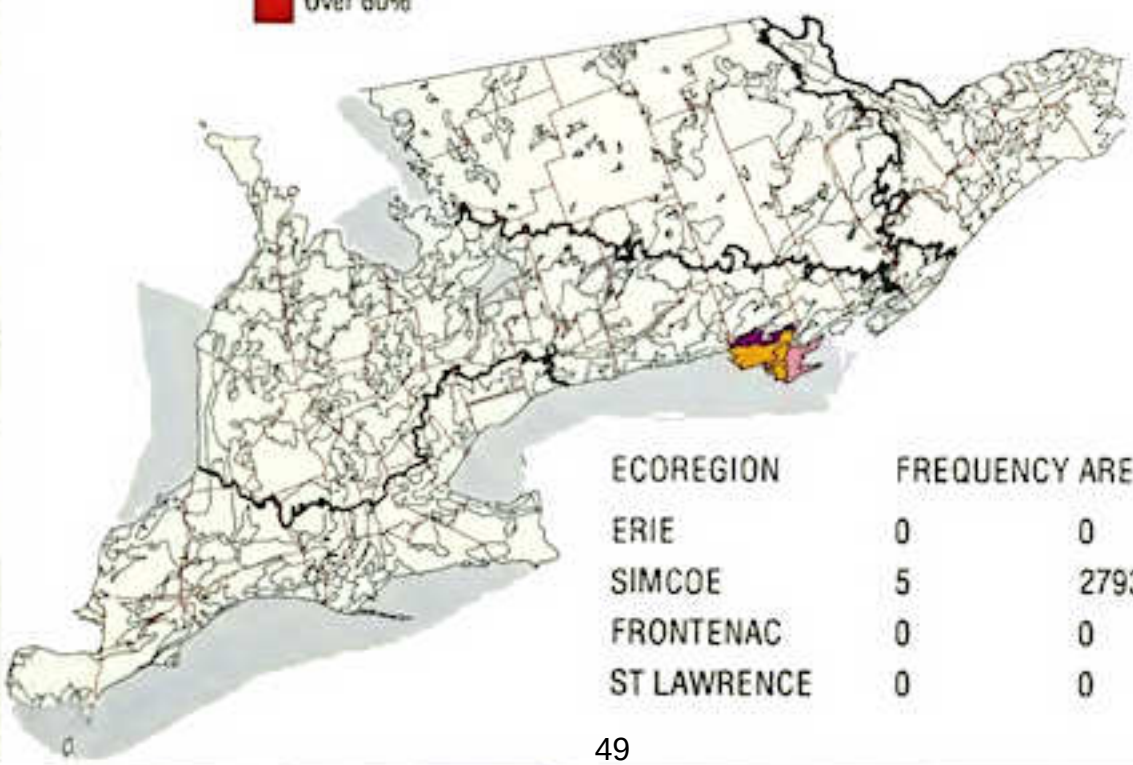


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	13	32018
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : ATHOL

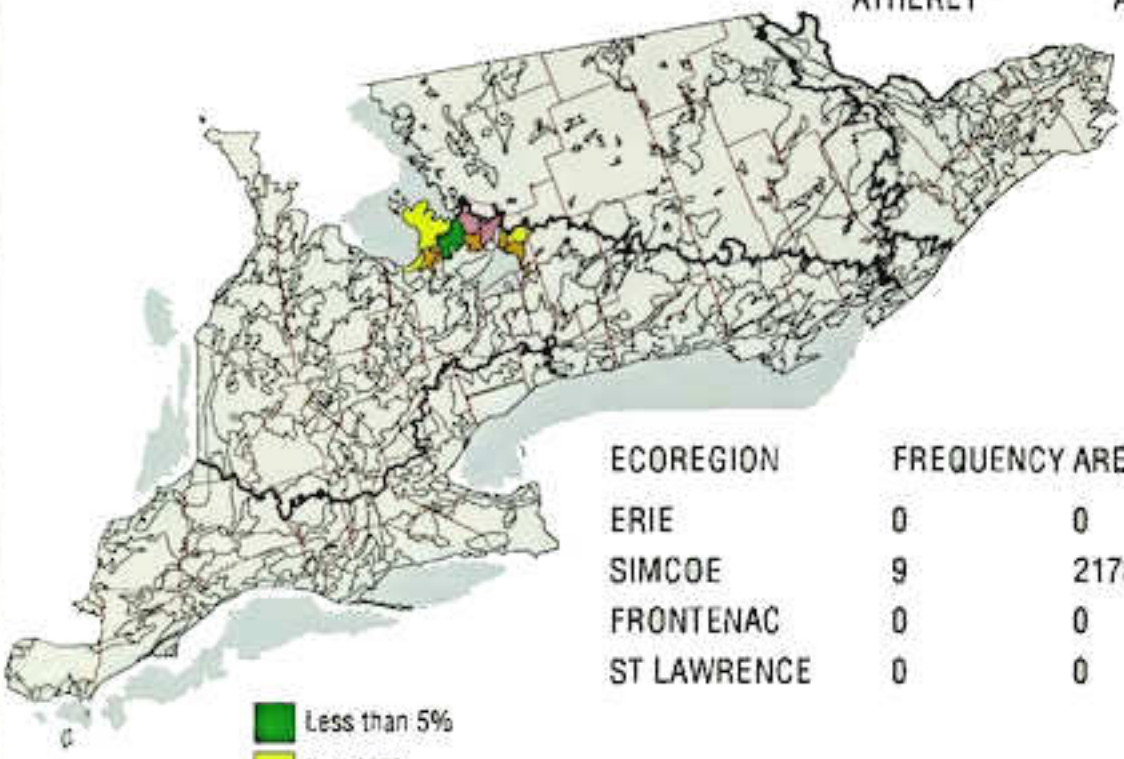
SERIES : ATHOL ATH



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	5	27938
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : MEDONTE

SERIES : MEDONTE MDT
LOVERING LVR
ATHERLY ATY

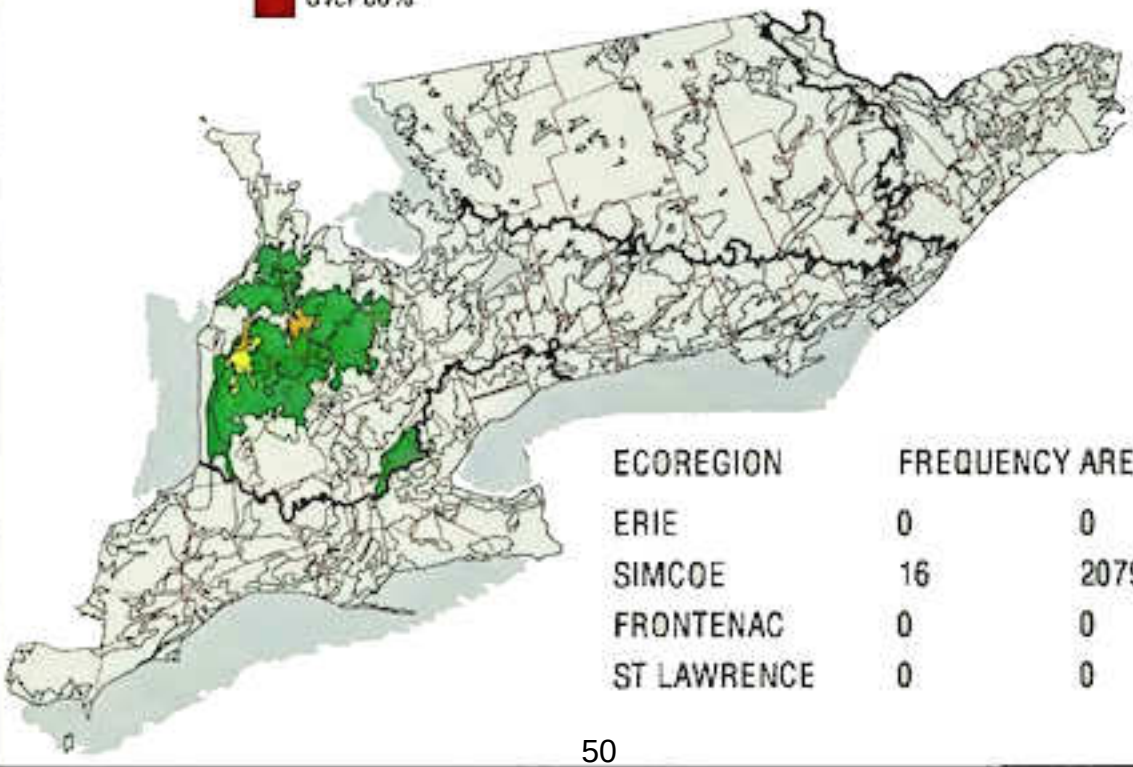


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	9	21780
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : DONNYBROOK

SERIES : DONNYBROOK DYK

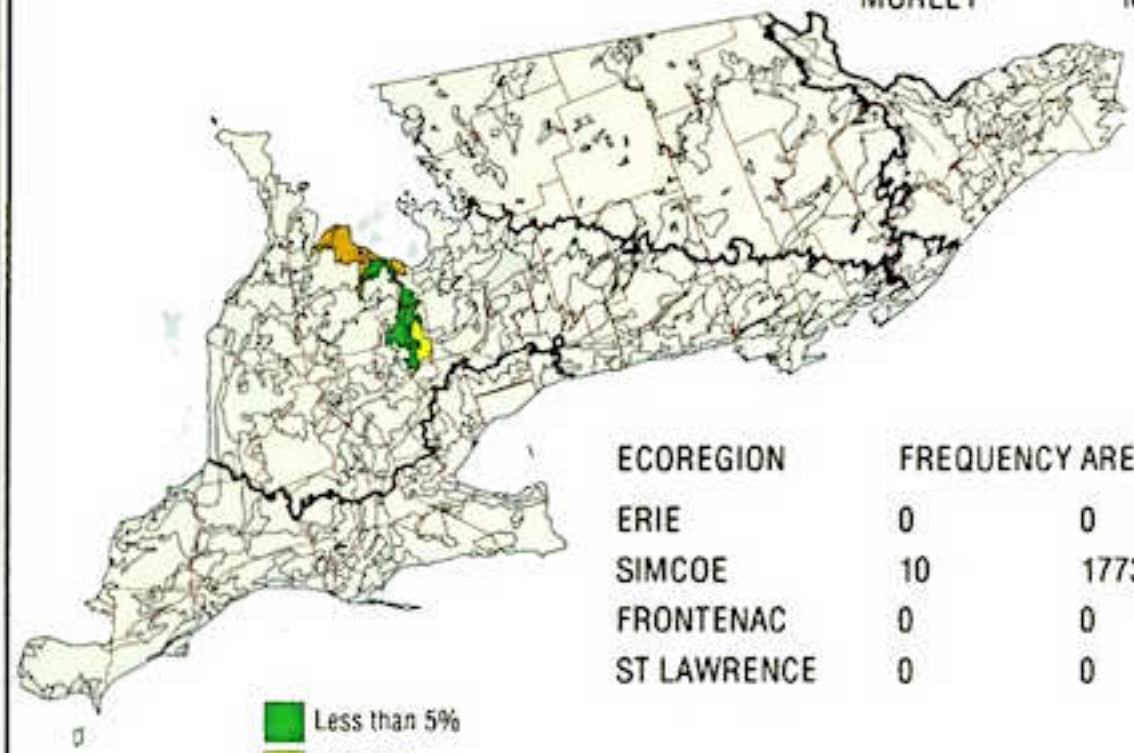


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	16	20792
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : DUNEDIN

SERIES :

DUNEDIN	DUD
CRAIGLEITH	CGH
MORLEY	MOY



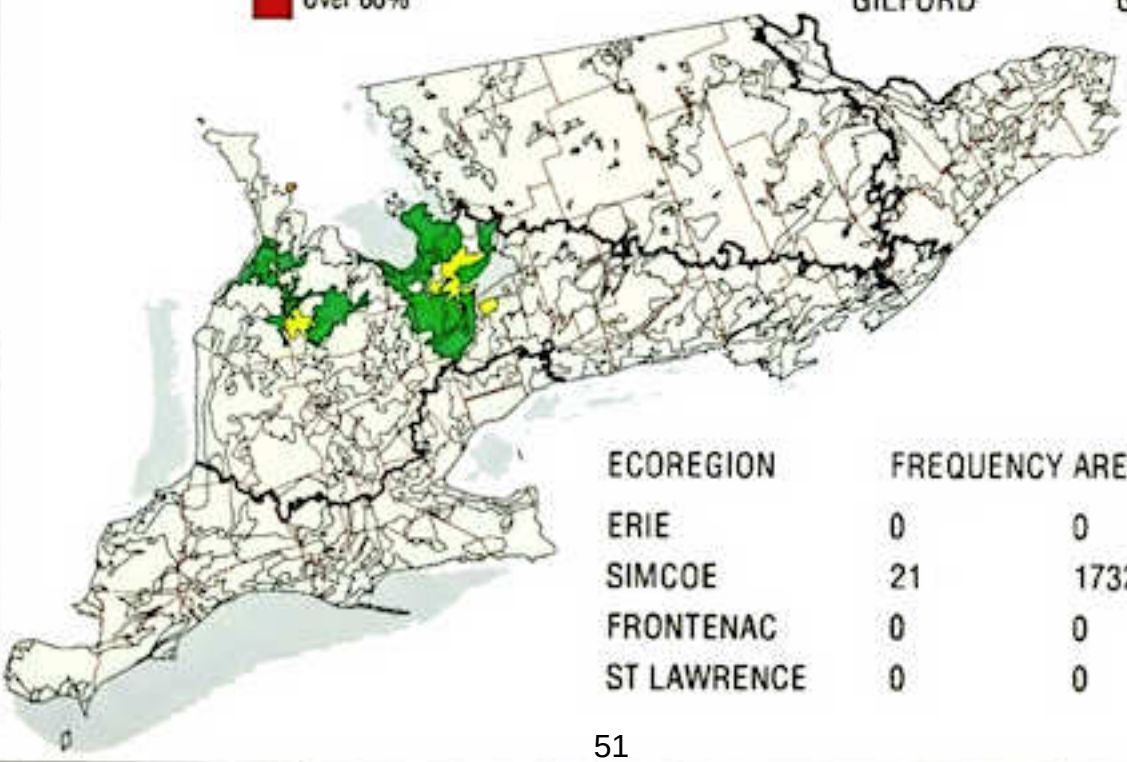
ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	10	17736
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : SARGENT

SERIES :

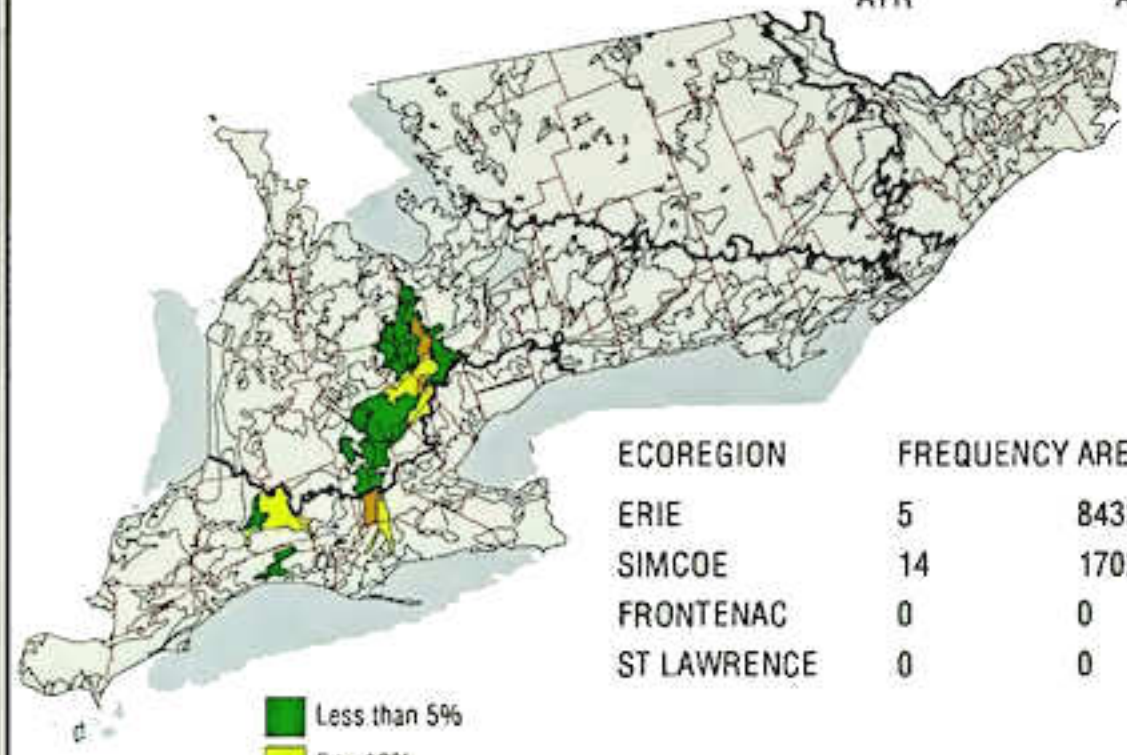
SARGENT	SGT
GWILLIMBURY	GIY
GILFORD	GFD



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	21	17327
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : CALEDON

SERIES : CALEDON CAD
CAMILLA CML
AYR AYR

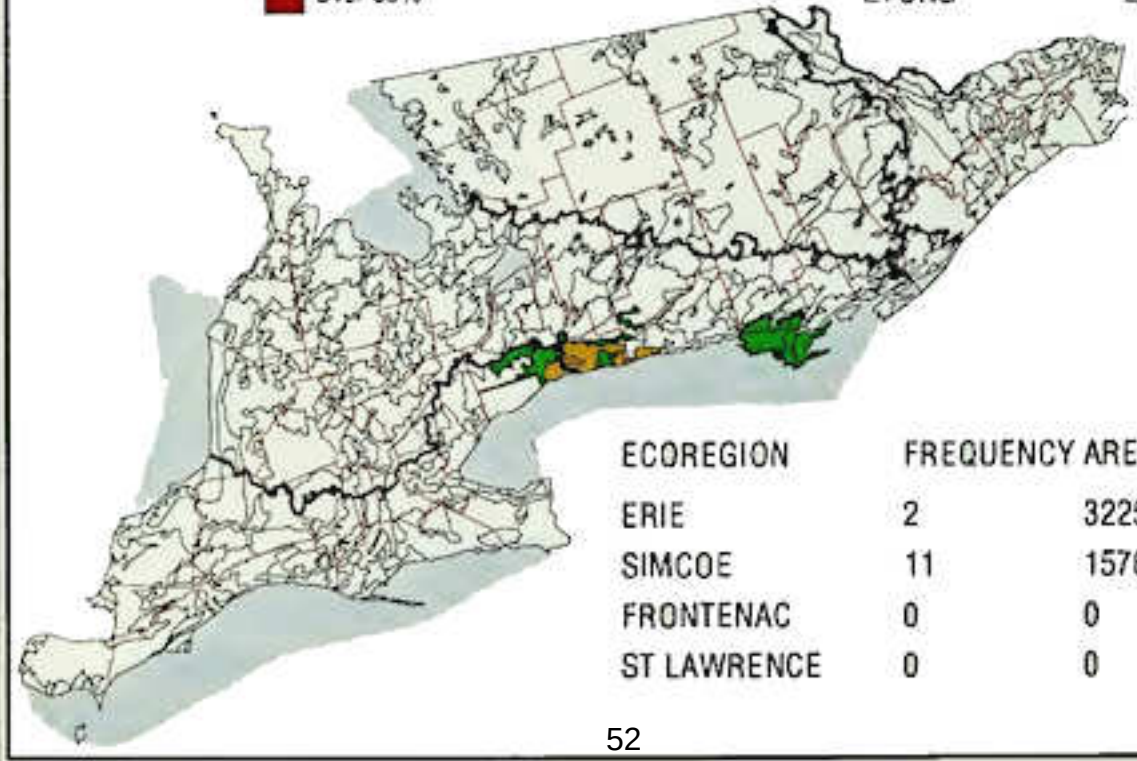


ECOREGION	FREQUENCY	AREA (ha)
ERIE	5	8432
SIMCOE	14	17025
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : DARLINGTON

SERIES : DARLINGTON DGT
WHITBY WBY
LYONS LYS

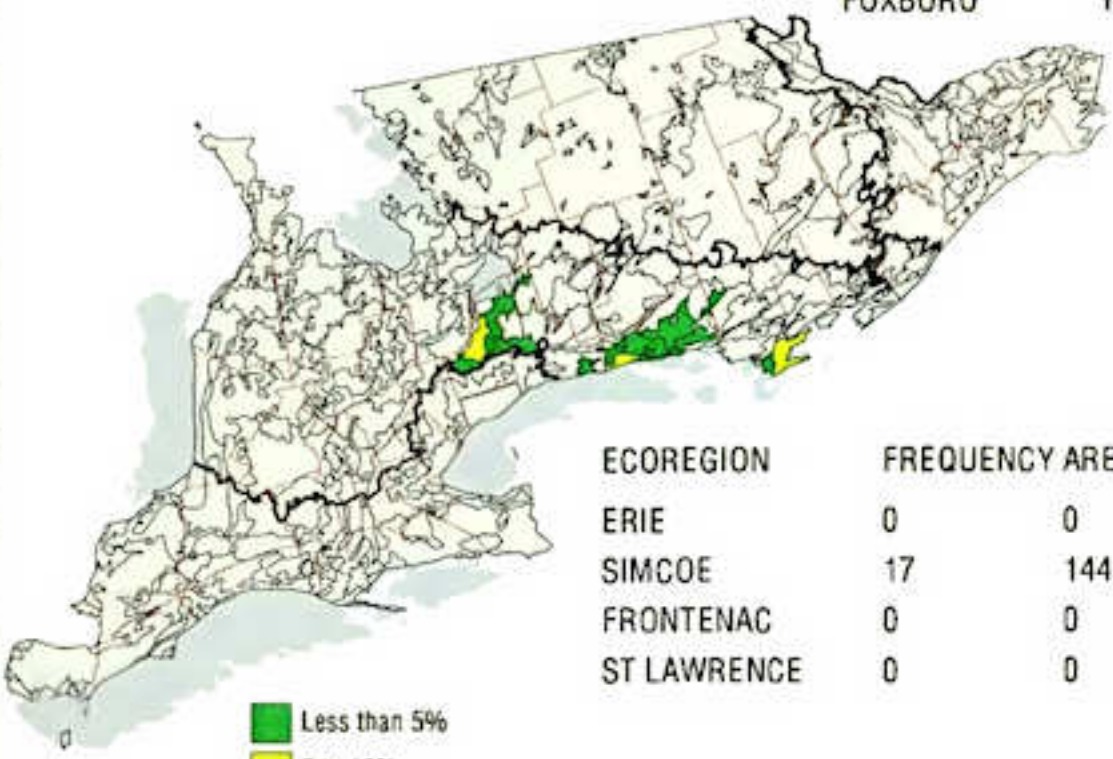


ECOREGION	FREQUENCY	AREA (ha)
ERIE	2	3225
SIMCOE	11	15769
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : PERCY

SERIES :

PERCY	PCY
TRENT	TRT
FOXBORO	FXB



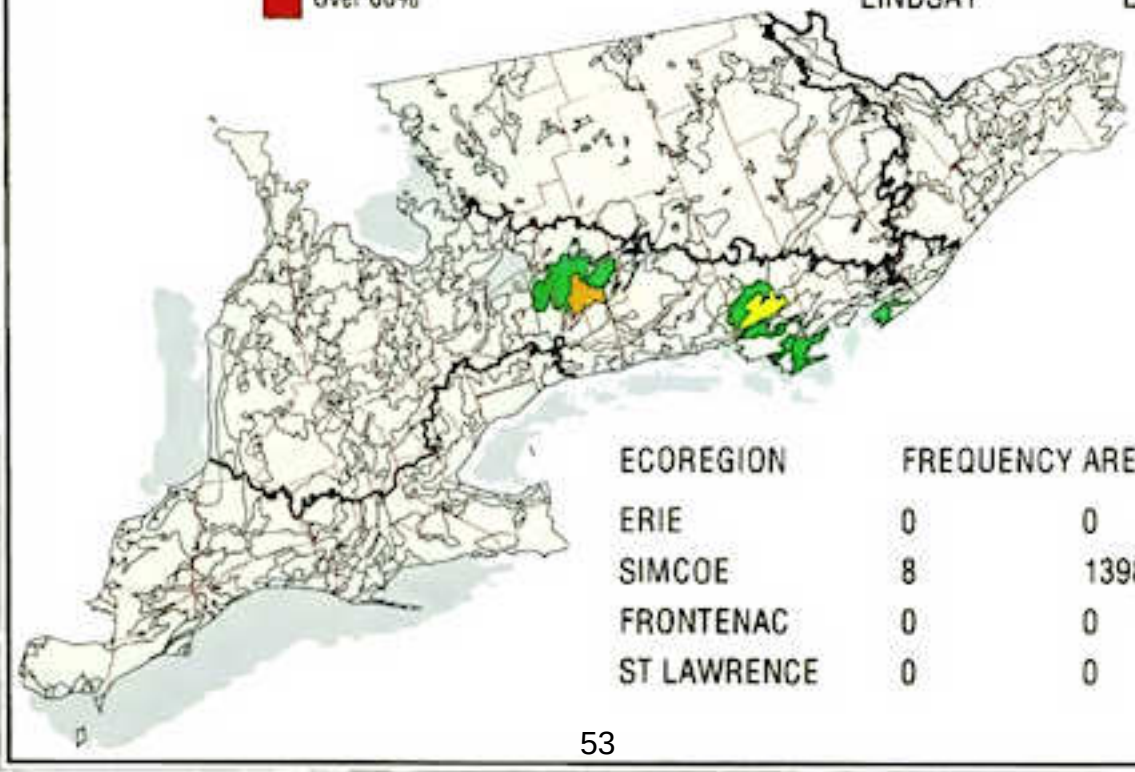
ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	17	14481
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : WAUPOOS

SERIES :

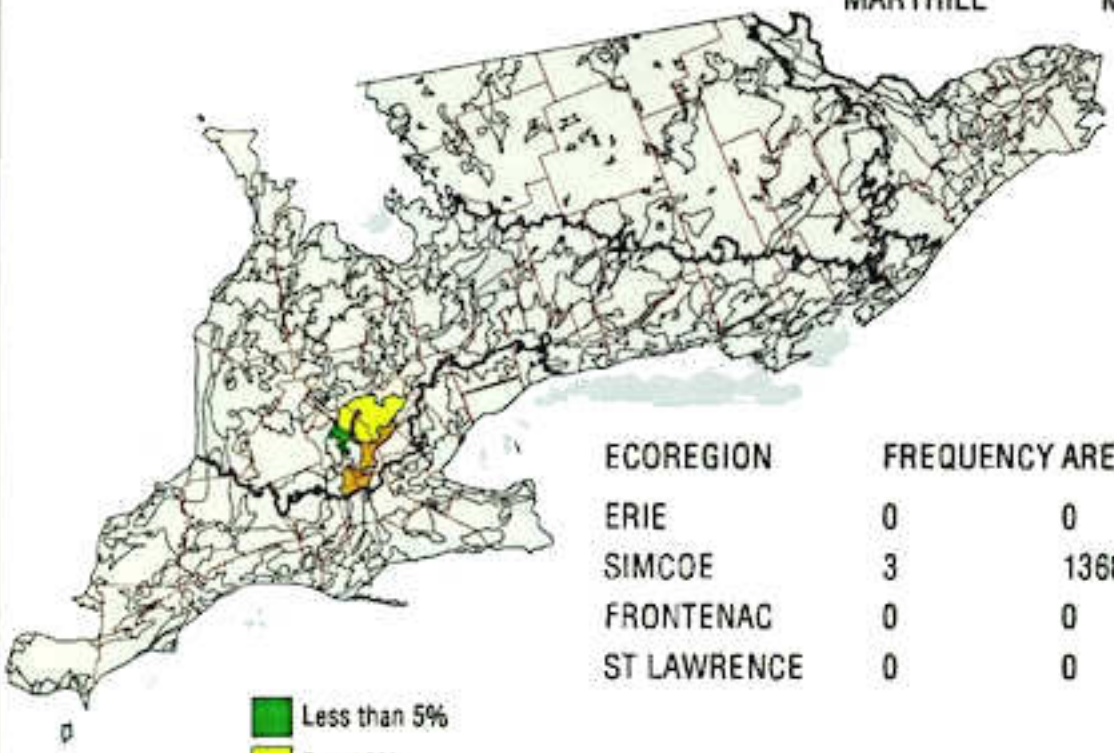
WAUPOOS	WPO
SOLMESVILLE	SMV
LINDSAY	LSY



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	8	13987
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : WOOLWICH

SERIES : WOOLWICH WOW
CONESTOGO CTG
MARYHILL MYL

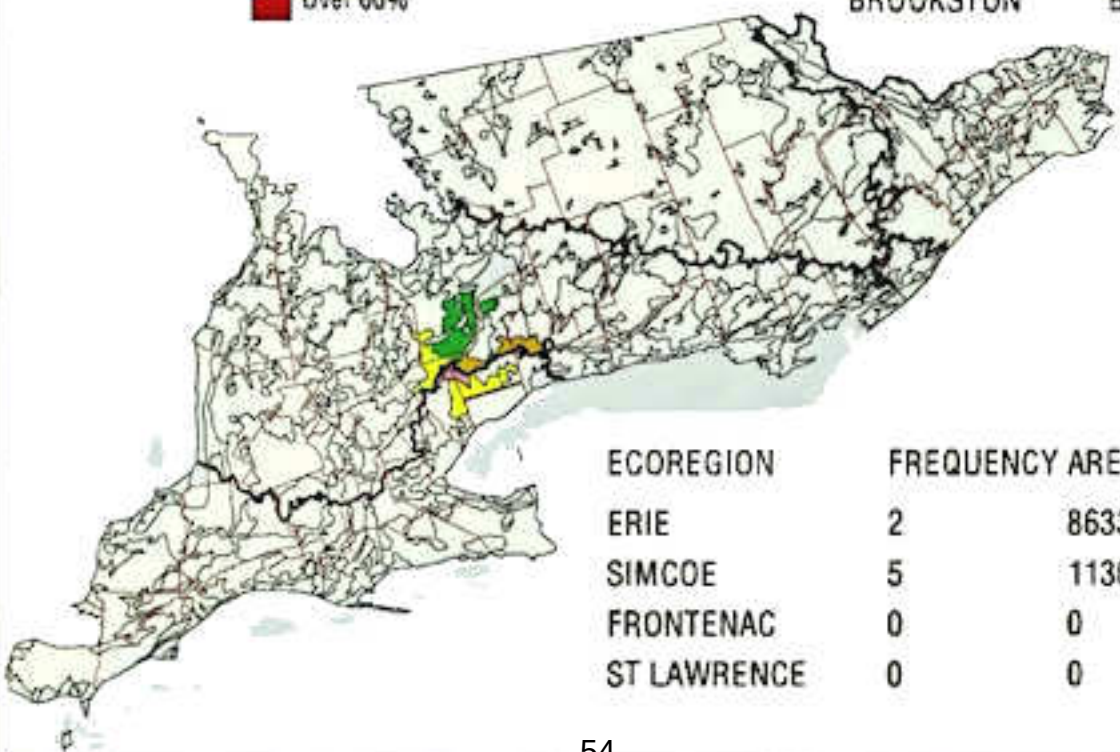


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	3	13686
FRONTENAC	0	0
ST LAWRENCE	0	0

Less than 5%
5 to 10%
10 to 20%
20 to 40%
40 to 60%
Over 60%

CATENA : KING

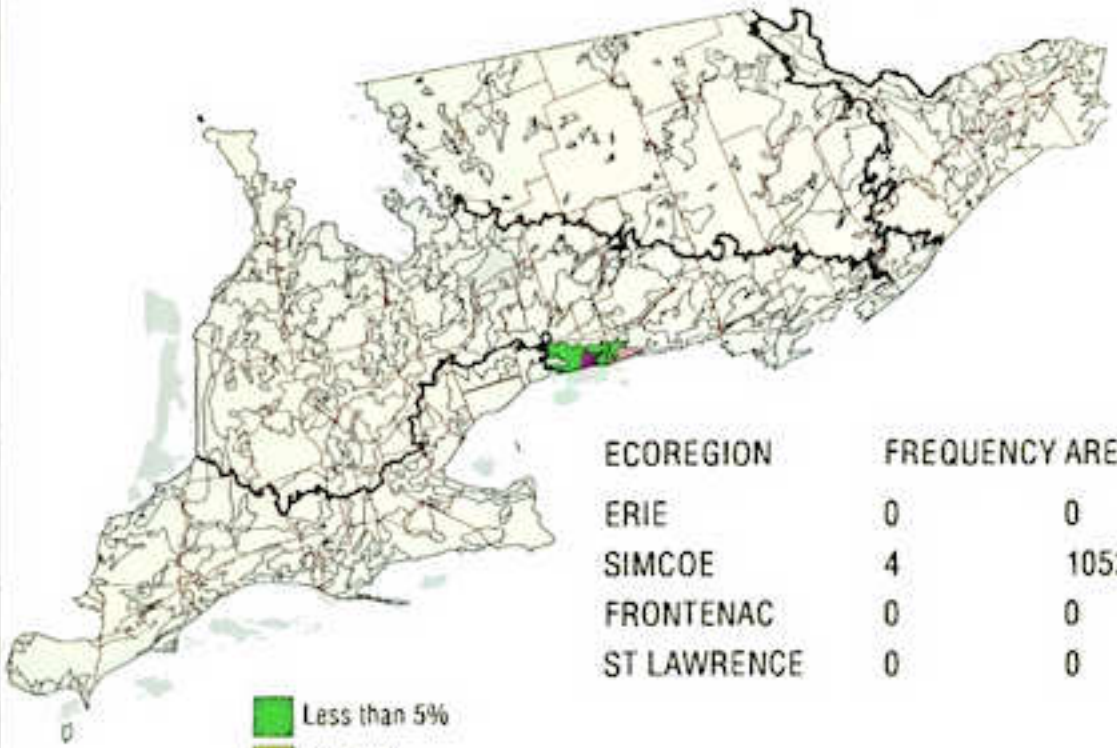
SERIES : KING KIG
MONAGHAN MOG
BROOKSTON BKN



ECOREGION	FREQUENCY	AREA (ha)
ERIE	2	8633
SIMCOE	5	11360
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : NEWCASTLE

SERIES : NEWCASTLE NWC
MATSON MTS

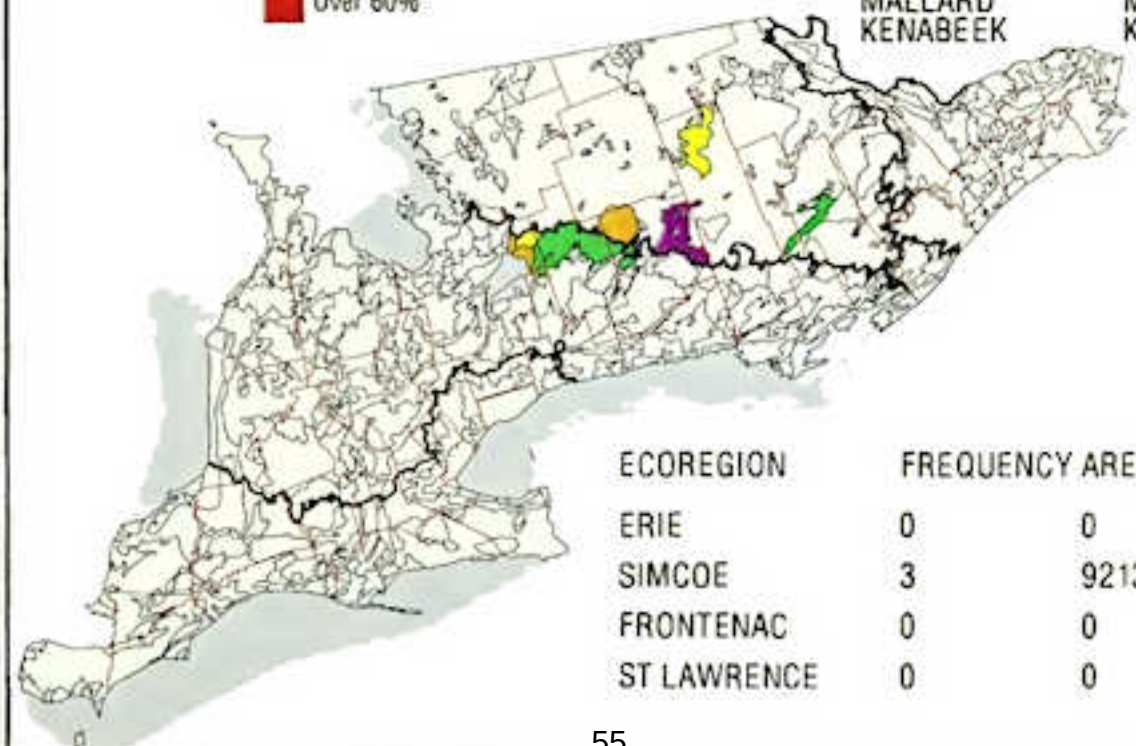


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	4	10526
FRONTENAC	0	0
ST LAWRENCE	0	0

Less than 5%
5 to 10%
10 to 20%
20 to 40%
40 to 60%
Over 60%

CATENA : WENDIGO

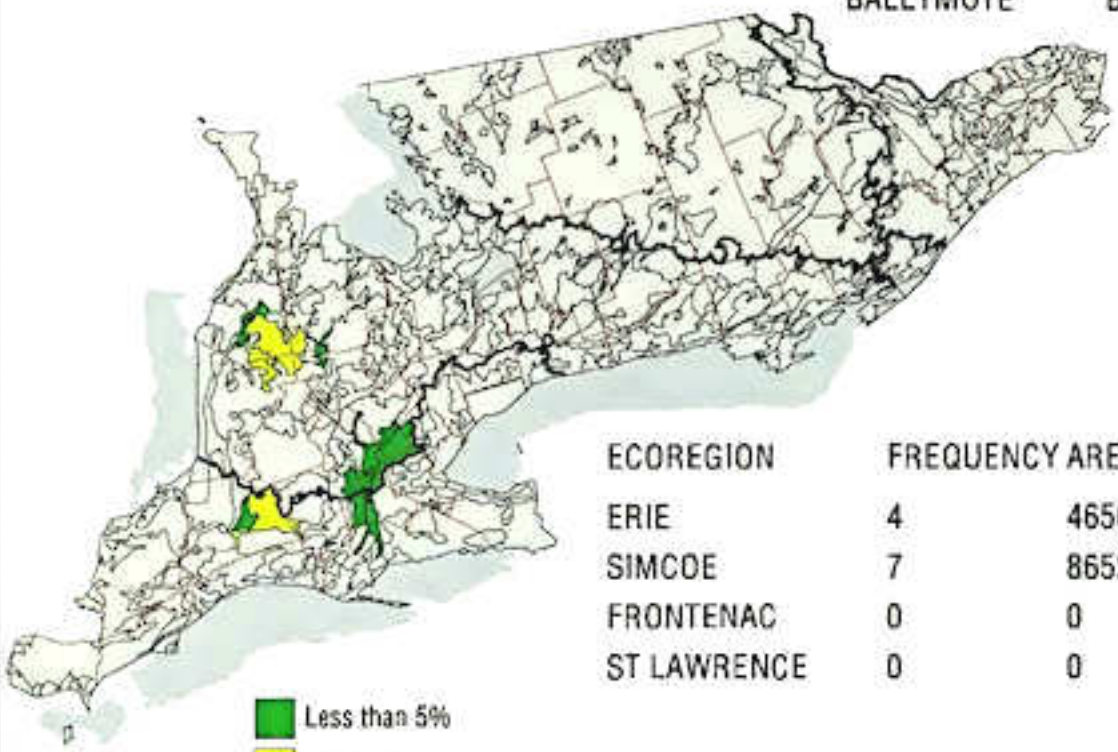
SERIES : WENDIGO WDG
CHANDOS CHD
MALLARD MLR
KENABEEK KEK



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	3	9213
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : TEESWATER

SERIES : TEESWATER TEW
FANSHAWE FAN
BALLYMOTE BLL

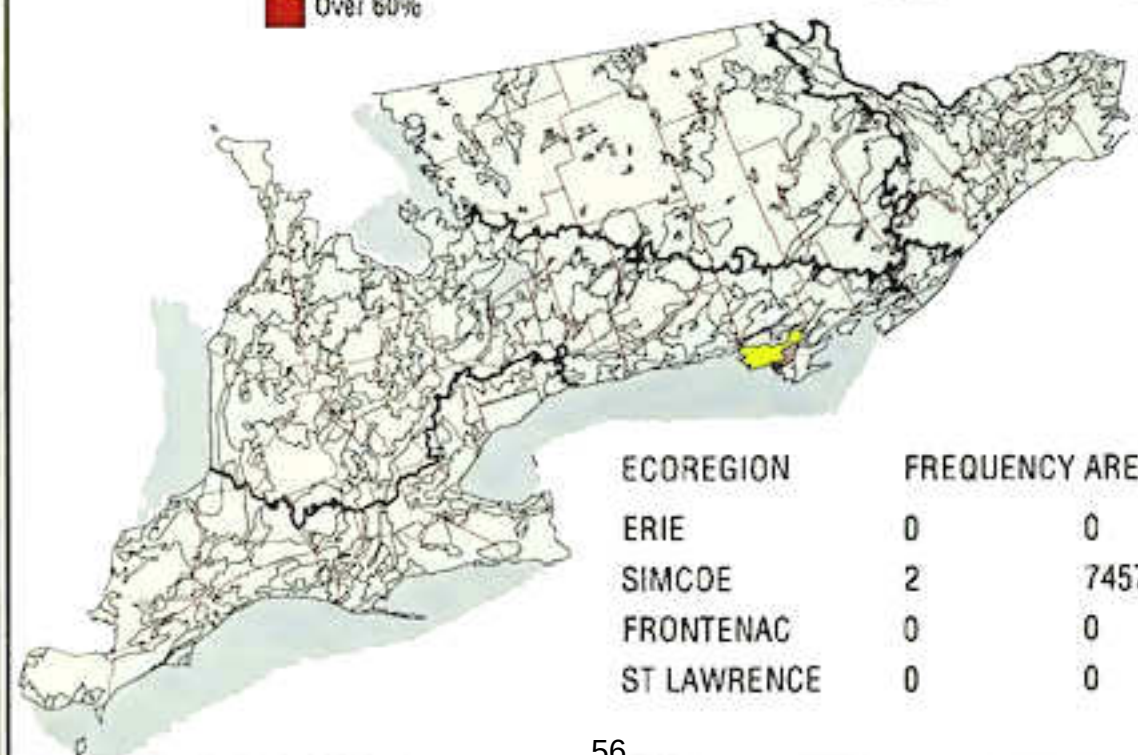


ECOREGION	FREQUENCY	AREA (ha)
ERIE	4	4656
SIMCOE	7	8652
FRONTENAC	0	0
ST LAWRENCE	0	0

Less than 5%
5 to 10%
10 to 20%
20 to 40%
40 to 60%
Over 60%

CATENA : HILLER

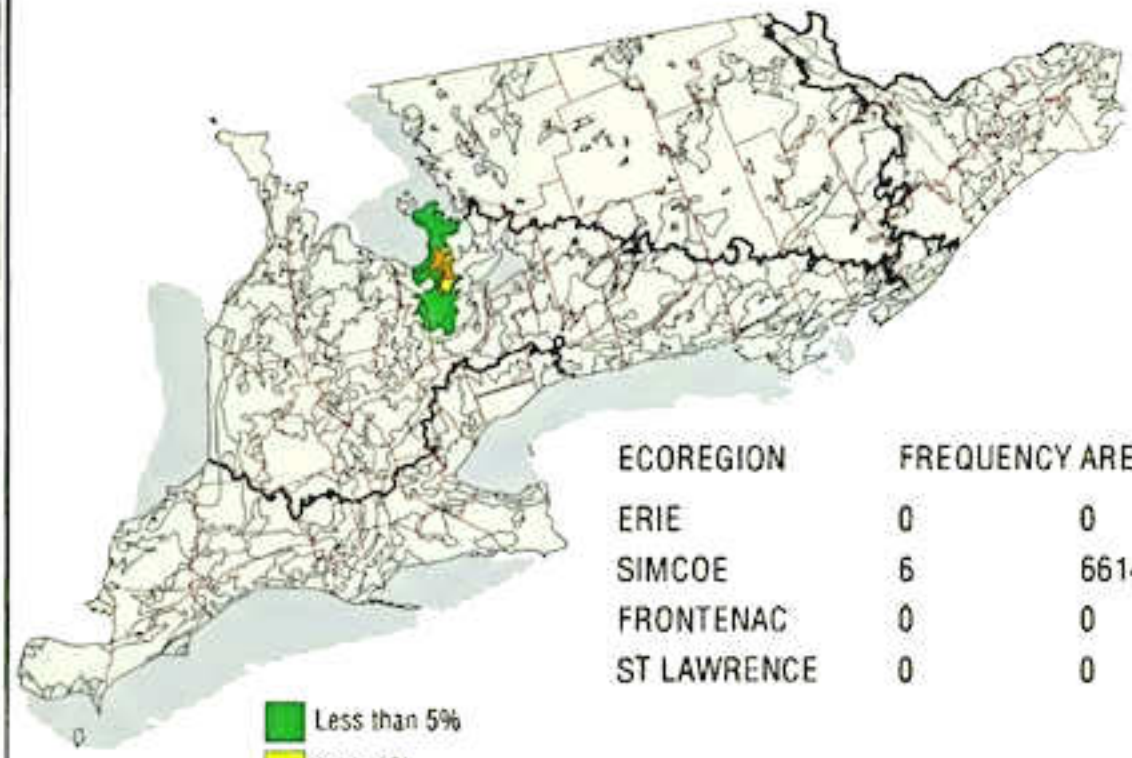
SERIES : HILLER HIL
GEROW GOW



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	2	7457
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : MINESING

SERIES : MINESING MSG

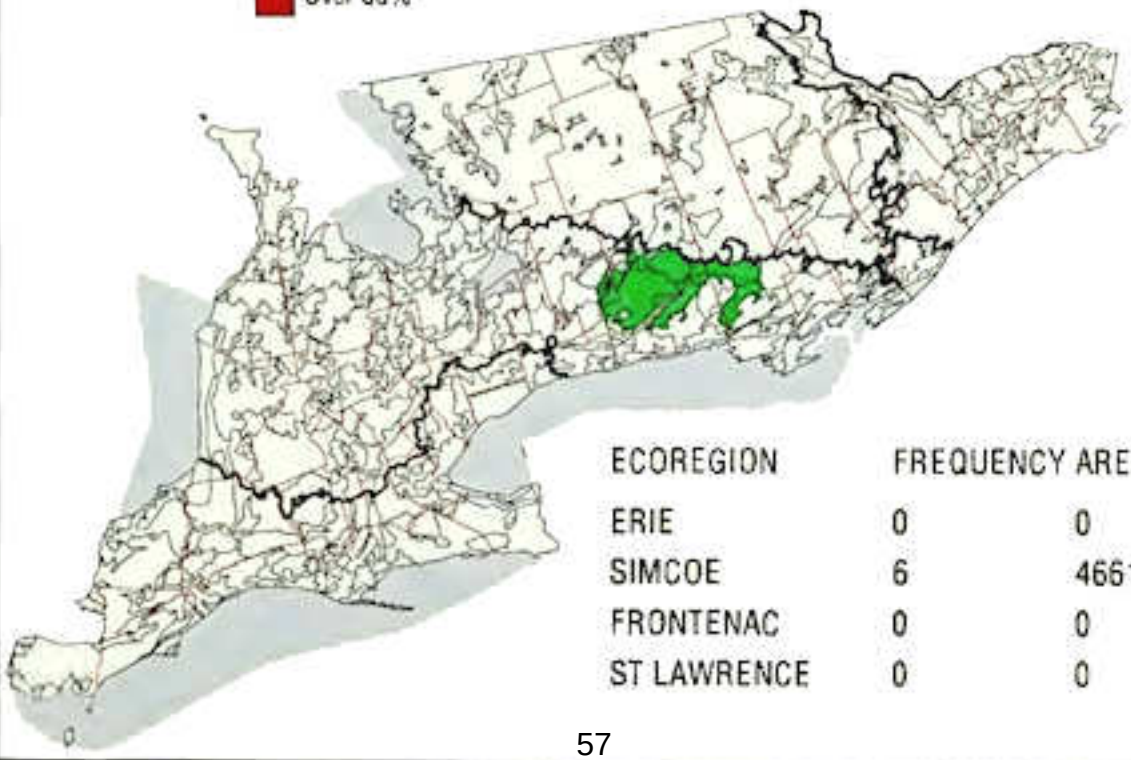


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	6	6614
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : CRAMAHE

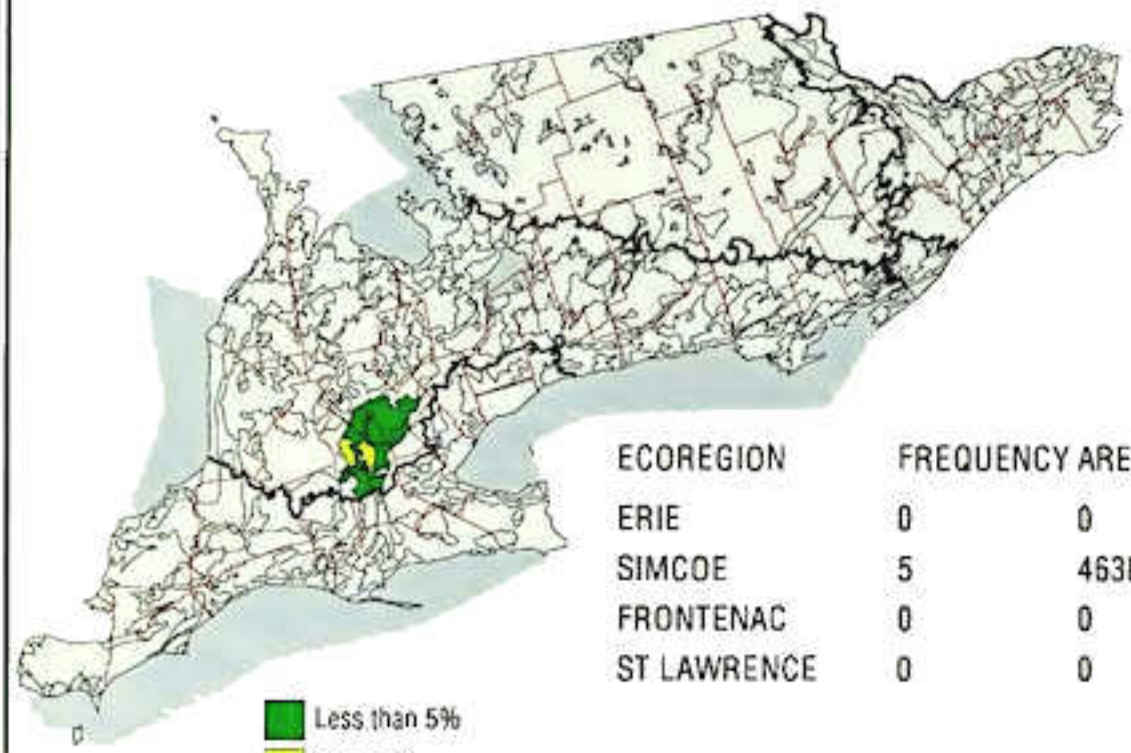
SERIES : CRAMAHE CMH



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	6	4661
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : LISBON

SERIES : LISBON LSB

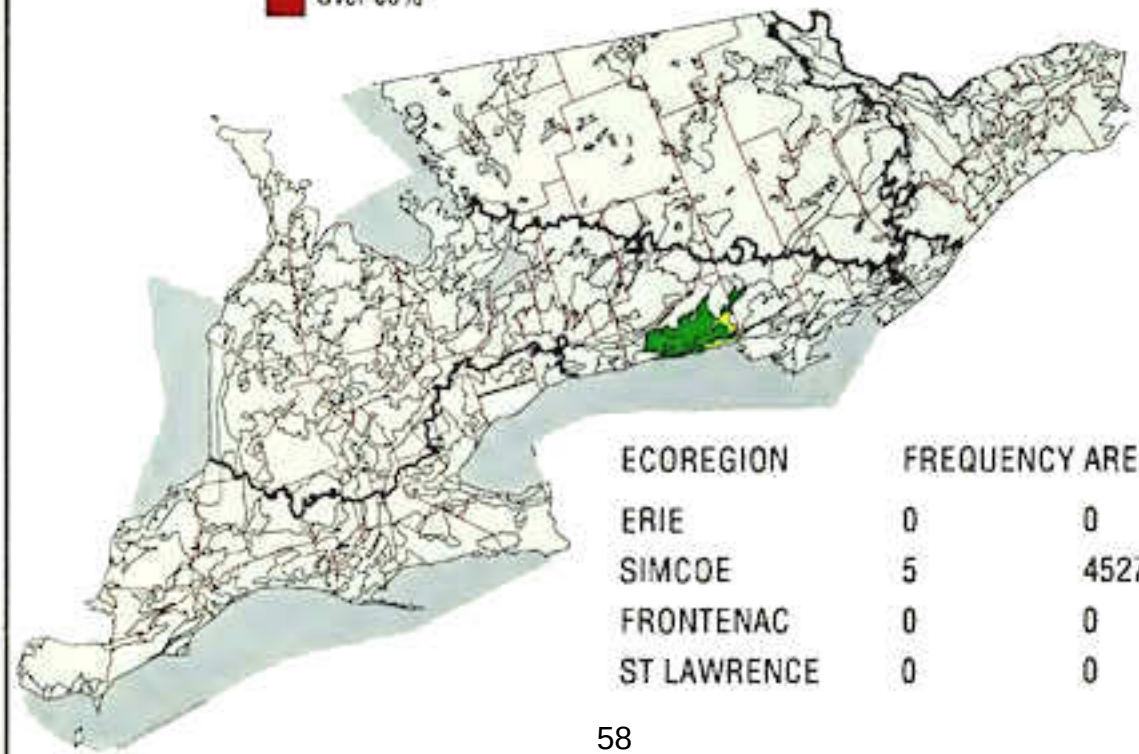


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	5	4638
FRONTENAC	0	0
ST LAWRENCE	0	0

Less than 5%
5 to 10%
10 to 20%
20 to 40%
40 to 60%
Over 60%

CATENA : COLBORNE

SERIES : COLBORNE CLB
BAMFORD BMF

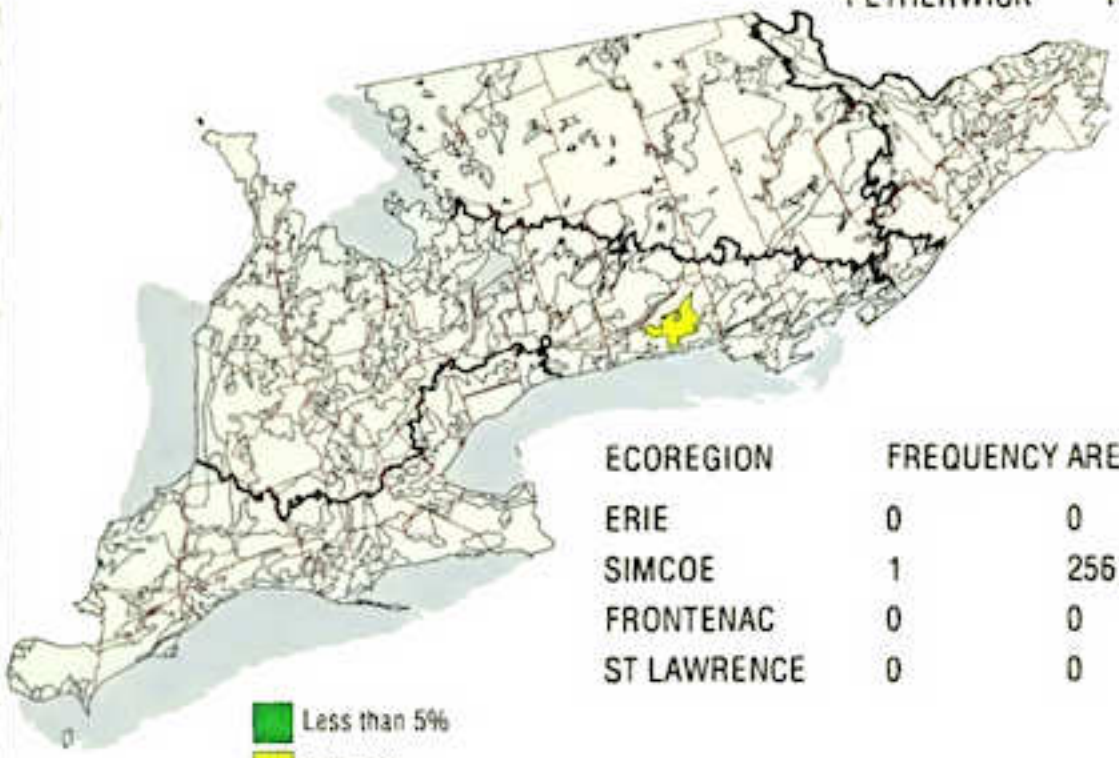


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	5	4527
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : NORHAM

SERIES :

NORHAM	NHM
CODRINGTON	CGT
PETHERWICK	PWK



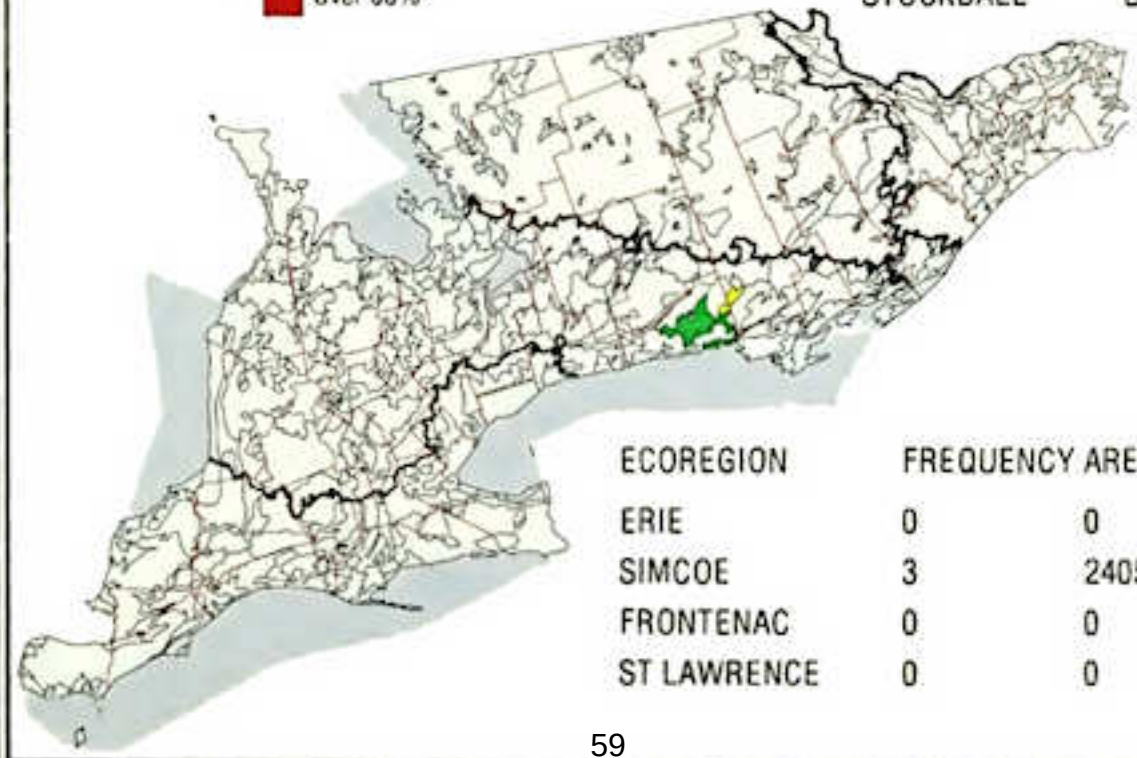
ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	1	2561
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : WOOLER

SERIES :

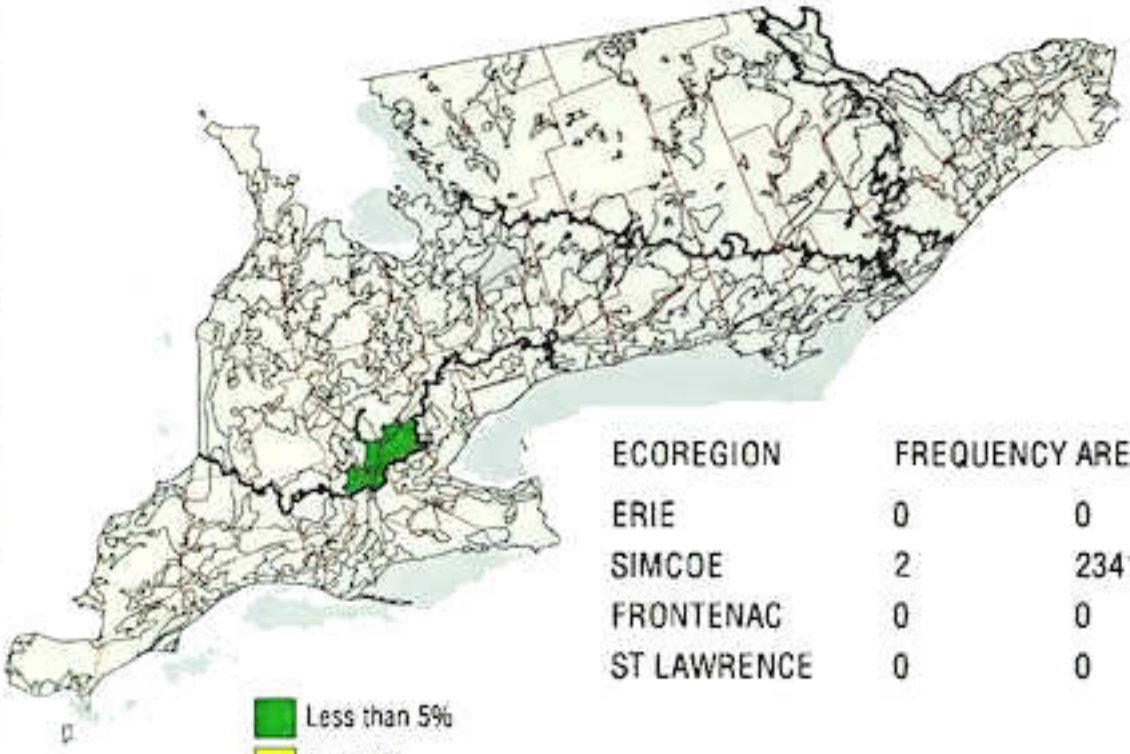
WOOLER	WOO
MURRAY	MUY
STOCKDALE	SKD



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	3	2405
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : MANNHEIM

SERIES : MANNHEIM MNM

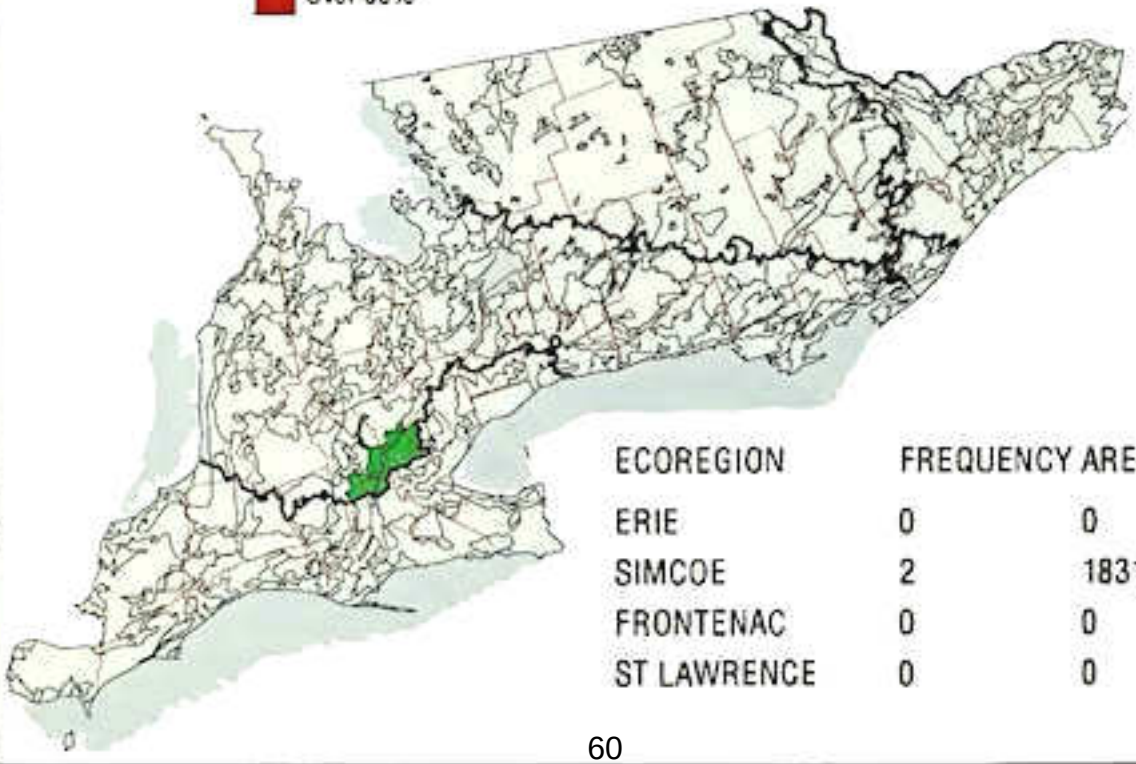


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	2	2341
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : STJACOBS

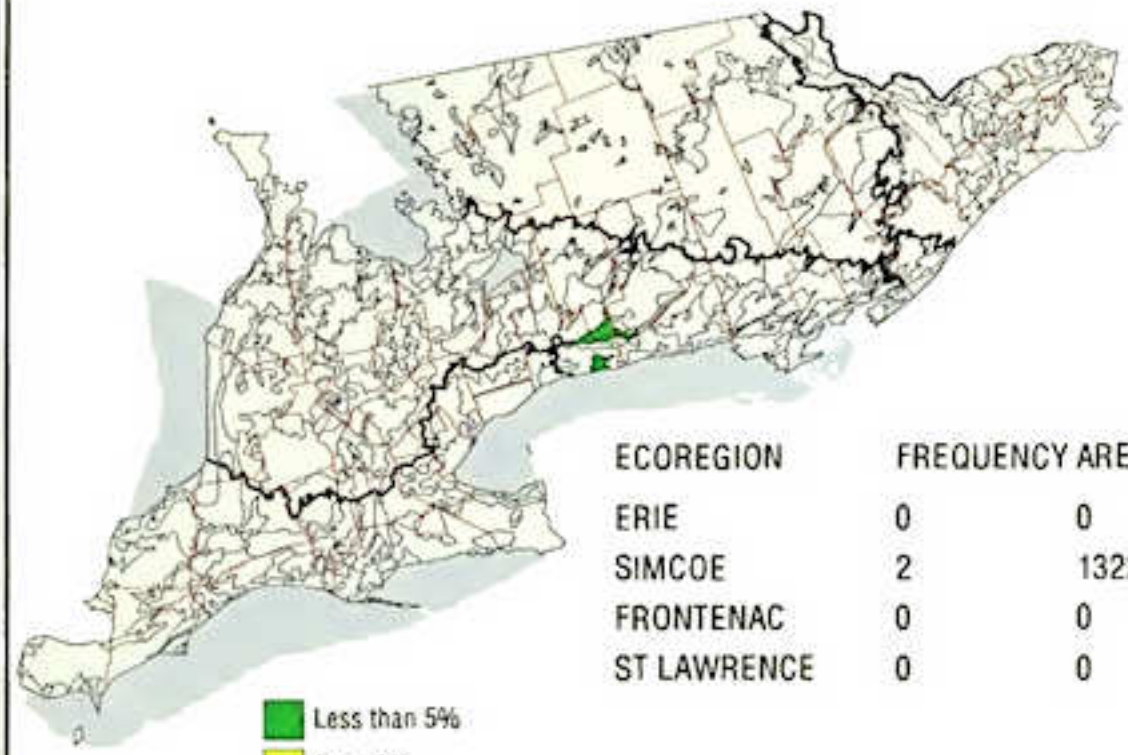
SERIES : STJACOBS SJB
FLORADALE FAD



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	2	1831
FRONTENAC	0	0
ST LAWRENCE	0	0

CATENA : BRIDGMAN

SERIES : BRIDGMAN BGM

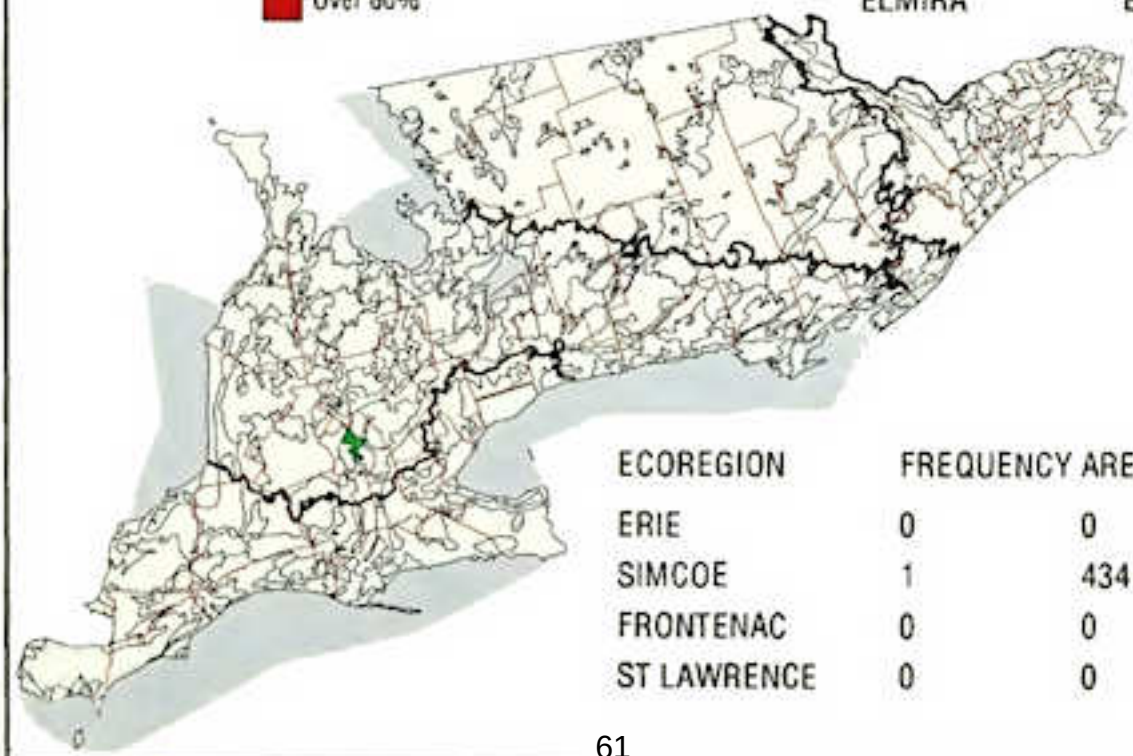


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	2	1322
FRONTENAC	0	0
ST LAWRENCE	0	0

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

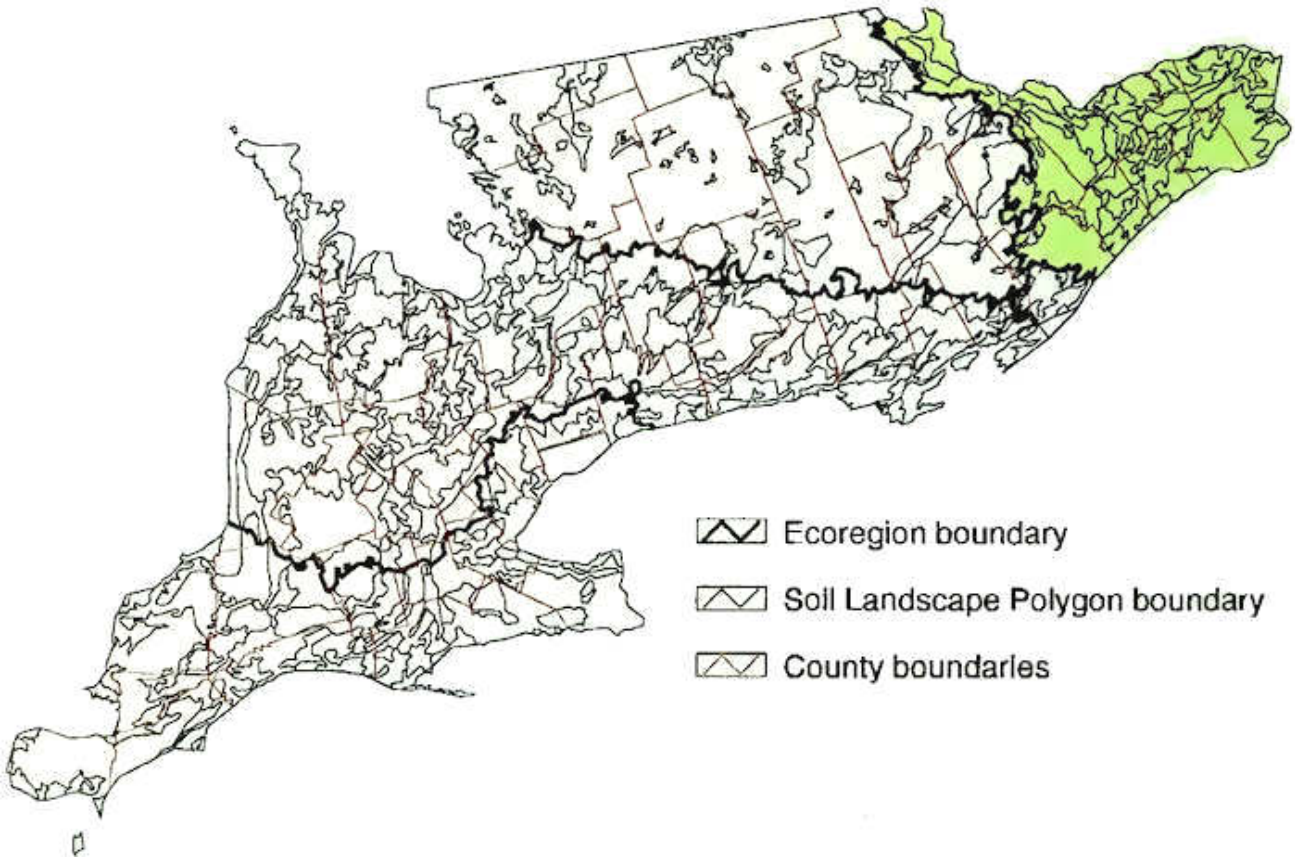
CATENA : GRAND

SERIES : GRAND GRD
MACTON MCT
ELMIRA EMI



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	1	434
FRONTENAC	0	0
ST LAWRENCE	0	0

5.3 Maps of the St. Lawrence Lowlands Ecoregion



Soil catenae:

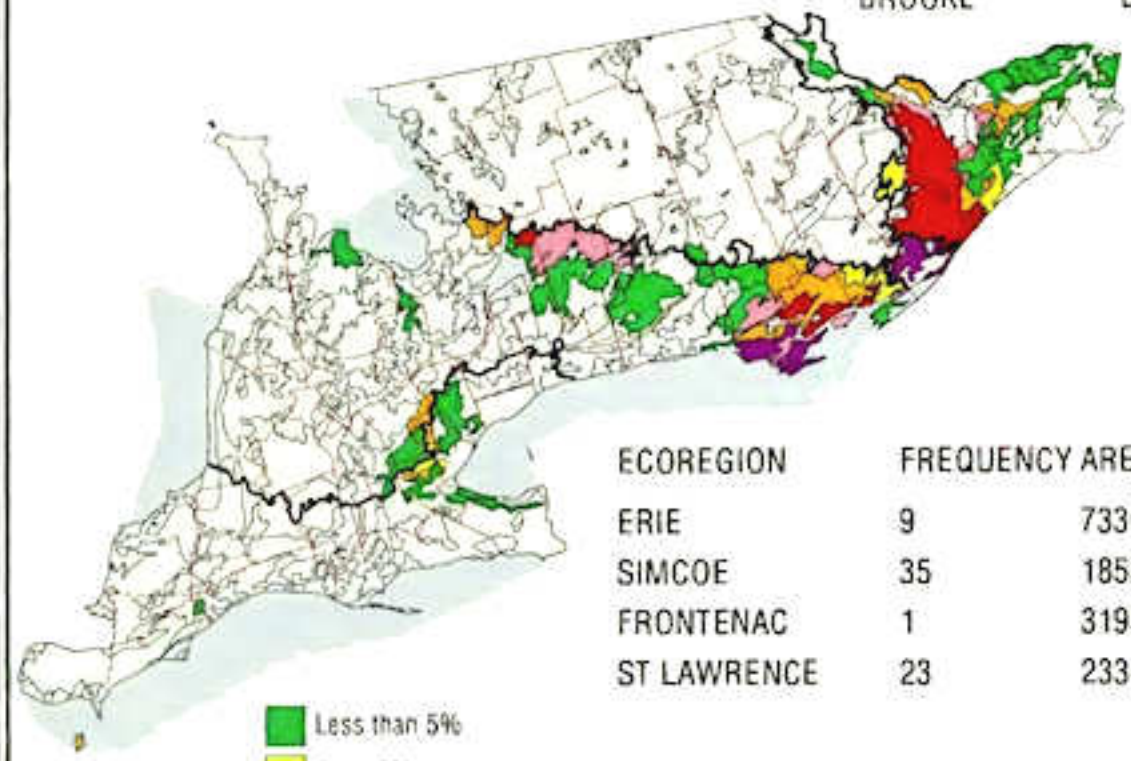
Almonte	Carp*	Castor	Dalhousie	Farmington*	Grenville*
Kars	Manotick	Monteagle*	Piperville	Renfrew	Rideau
St.Thomas	Tennyson	Tweed	Uplands	Wendover	White Lake*
Wolford					

* denotes soil catena also found in other ecoregions.

CATENA : FARMINGTON

SERIES :

FARMINGTON	FRM
FRANKTOWN	FKW
BROOKE	BOK



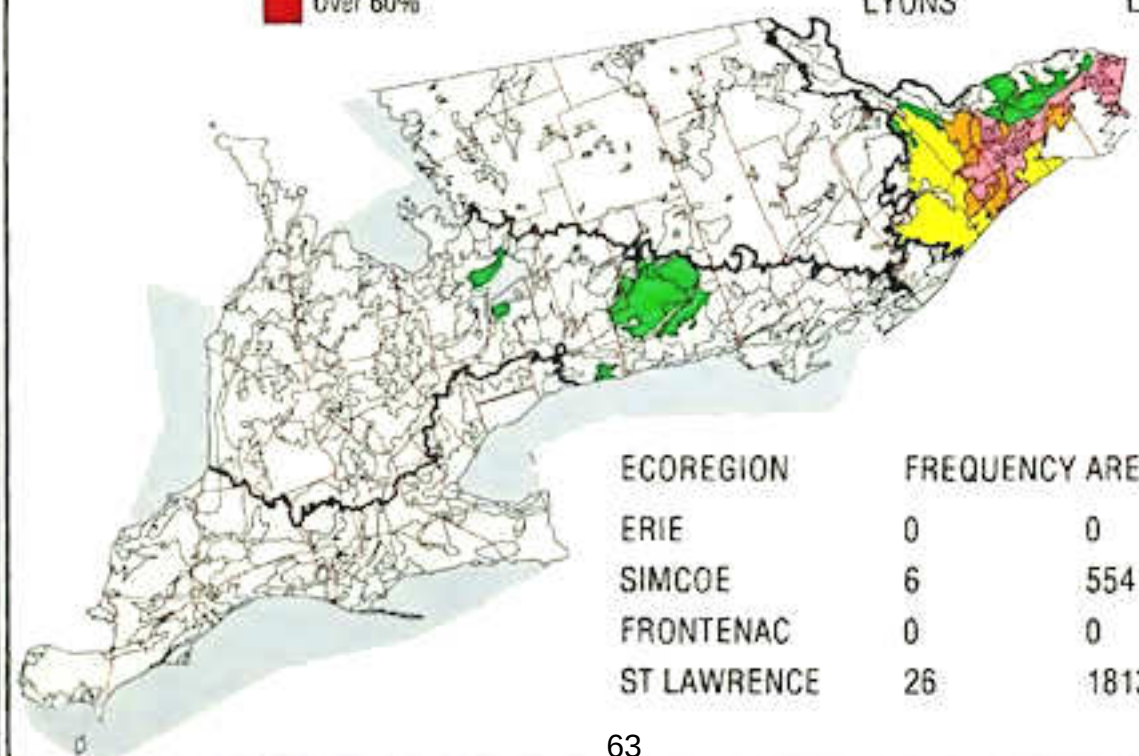
ECOREGION	FREQUENCY	AREA (ha)
ERIE	9	7330
SIMCOE	35	185318
FRONTENAC	1	31930
ST LAWRENCE	23	233438

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : GRENVILLE

SERIES :

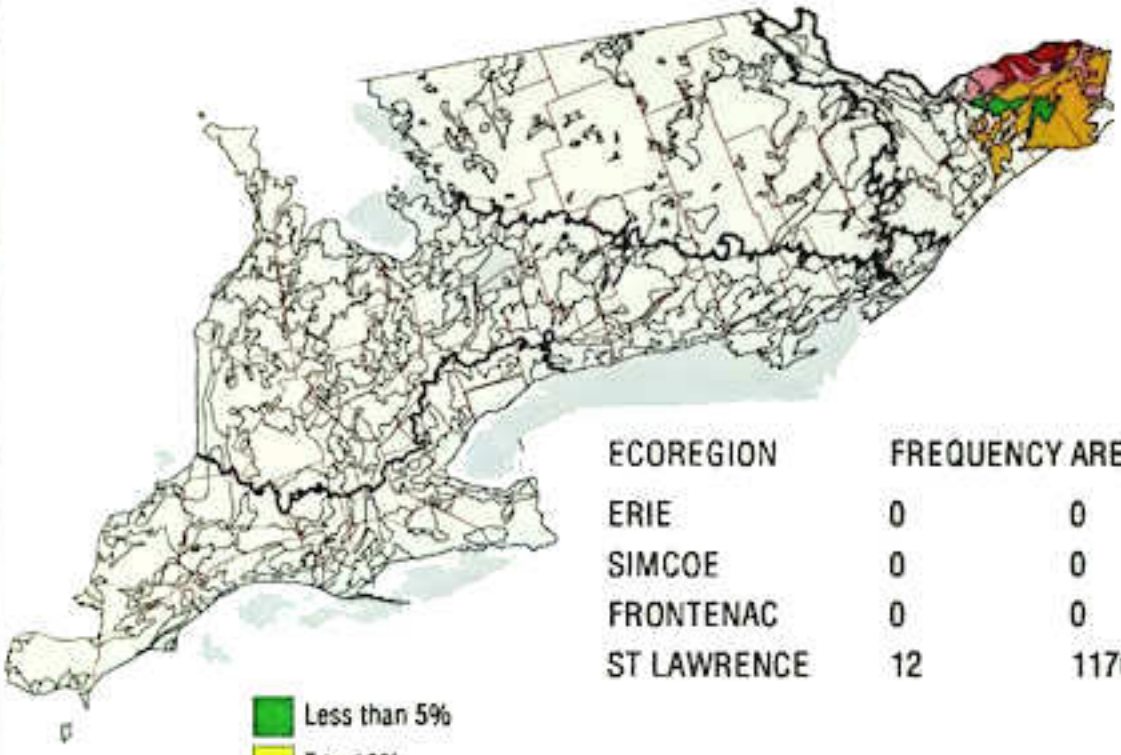
GRENVILLE	GVI
MATILDA	MTD
LYONS	LYS



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	6	5541
FRONTENAC	0	0
ST LAWRENCE	26	181353

CATENA : WENDOVER

SERIES : WENDOVER WDV
BEARBROOK BBO

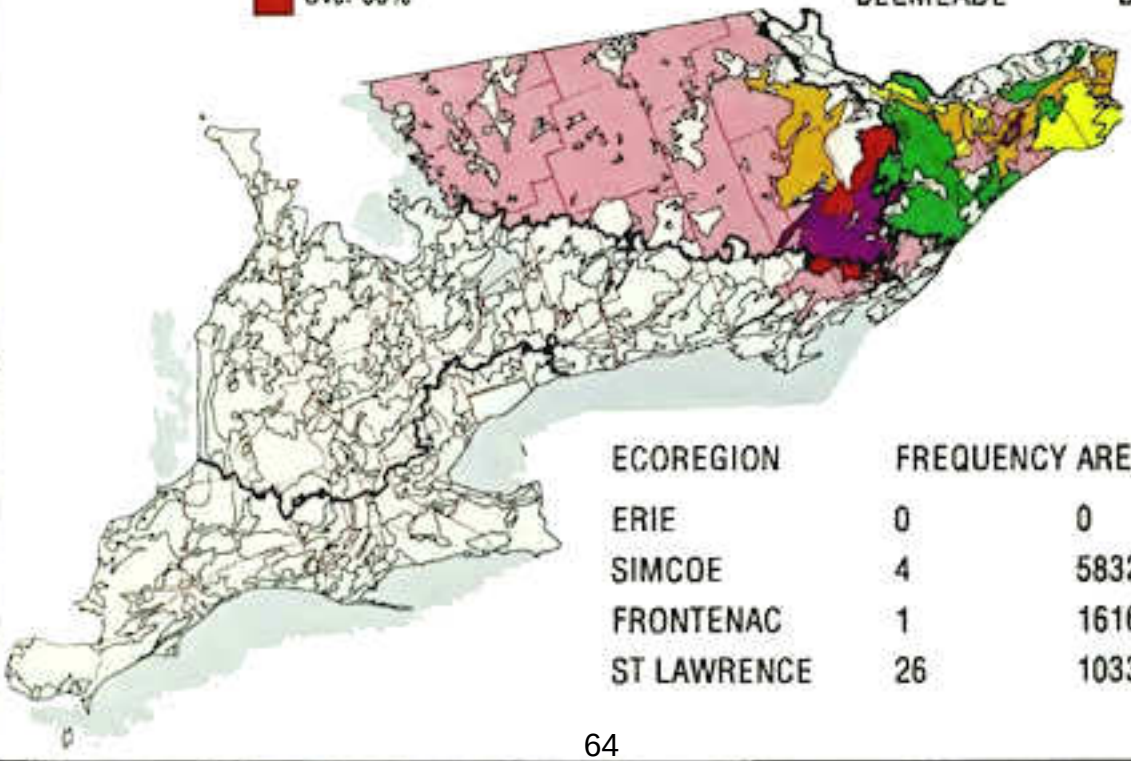


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	12	117612

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : CARP

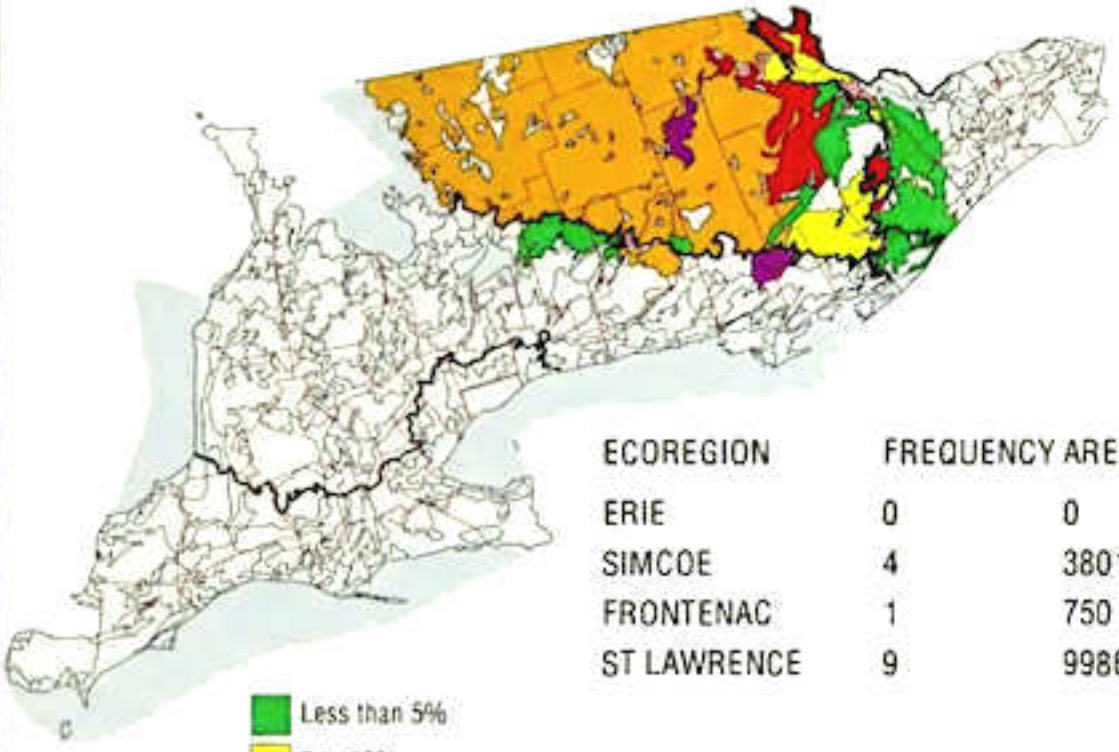
SERIES : CARP CRP
NORTHGOWER NGW
BELMEADE BMD



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	4	58323
FRONTENAC	1	16167
ST LAWRENCE	26	103375

CATENA : MONTEAGLE

SERIES : MONTEAGLE MGL
WEMYSS WYS

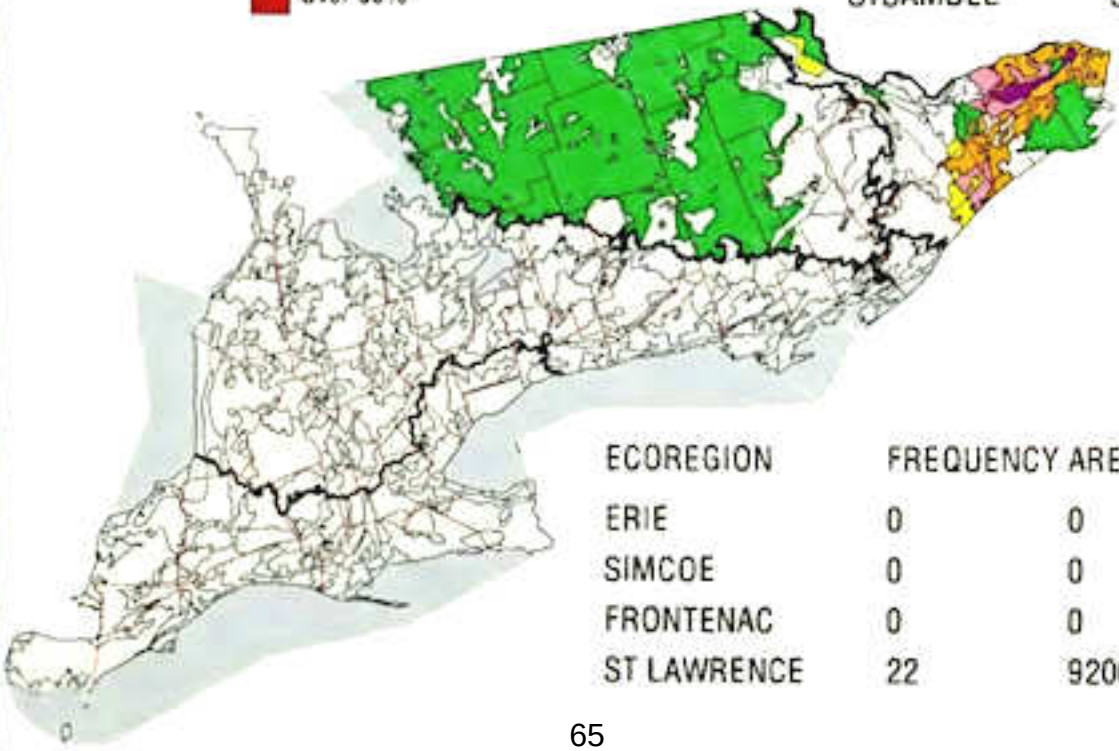


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	4	38018
FRONTENAC	1	750
ST LAWRENCE	9	99862

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : UPLANDS

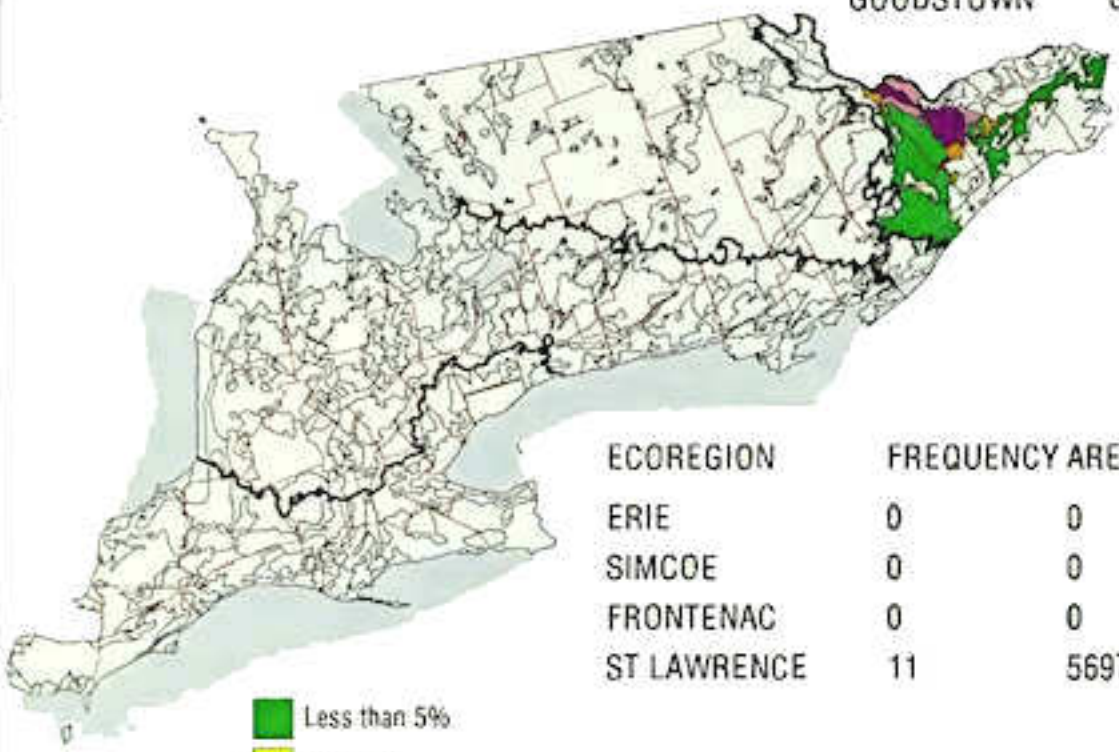
SERIES : UPLANDS UPD
RUBICON RUB
STSAMUEL SSM



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	22	92008

CATENA : DALHOUSIE

SERIES : DALHOUSIE DHU
BRANDON BDO
GOODSTOWN GDT

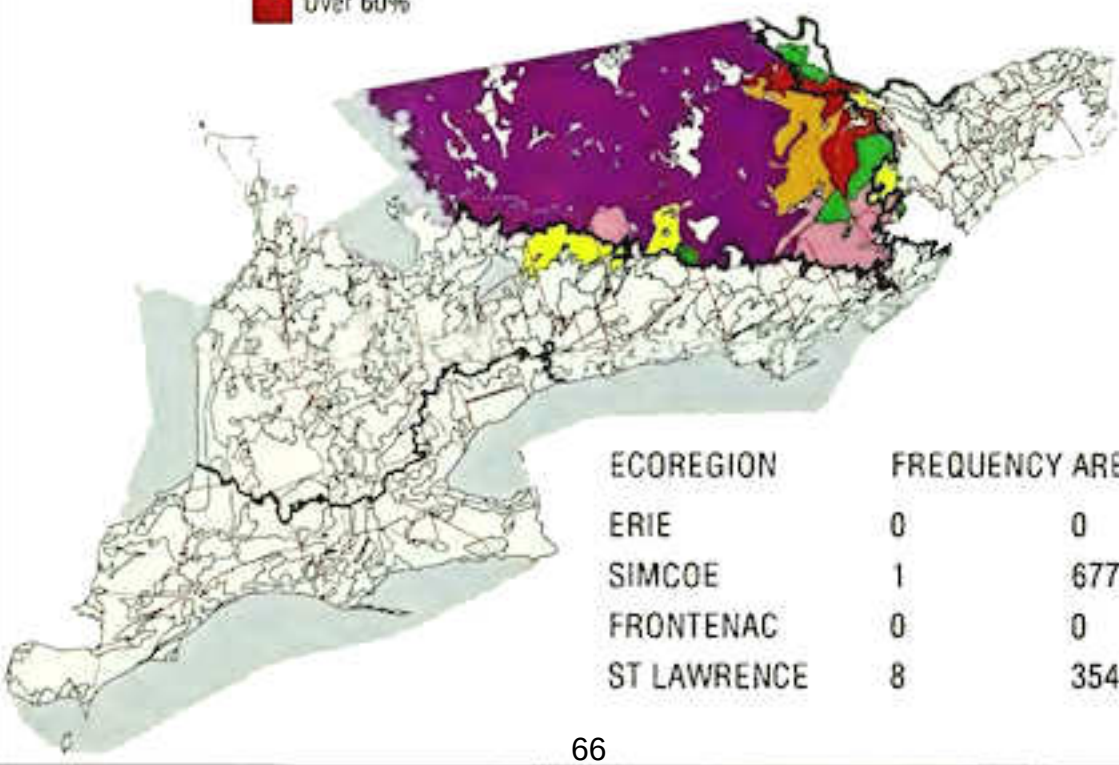


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	11	56975

Less than 5%
5 to 10%
10 to 20%
20 to 40%
40 to 60%
Over 60%

CATENA : TWEED

SERIES : TWEED TWE

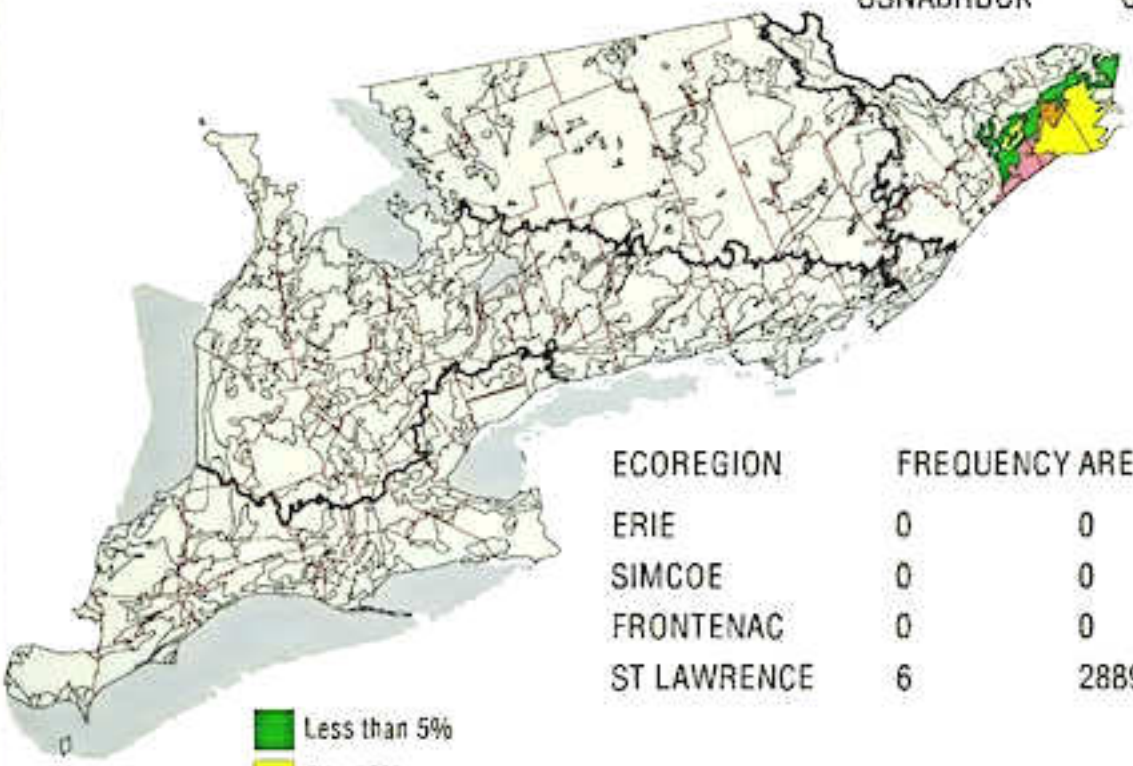


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	1	6772
FRONTENAC	0	0
ST LAWRENCE	8	35425

CATENA : WOLFORD

SERIES :

WOLFORD	WFD
MORRISBURG	MBG
OSNABRUCK	OBK



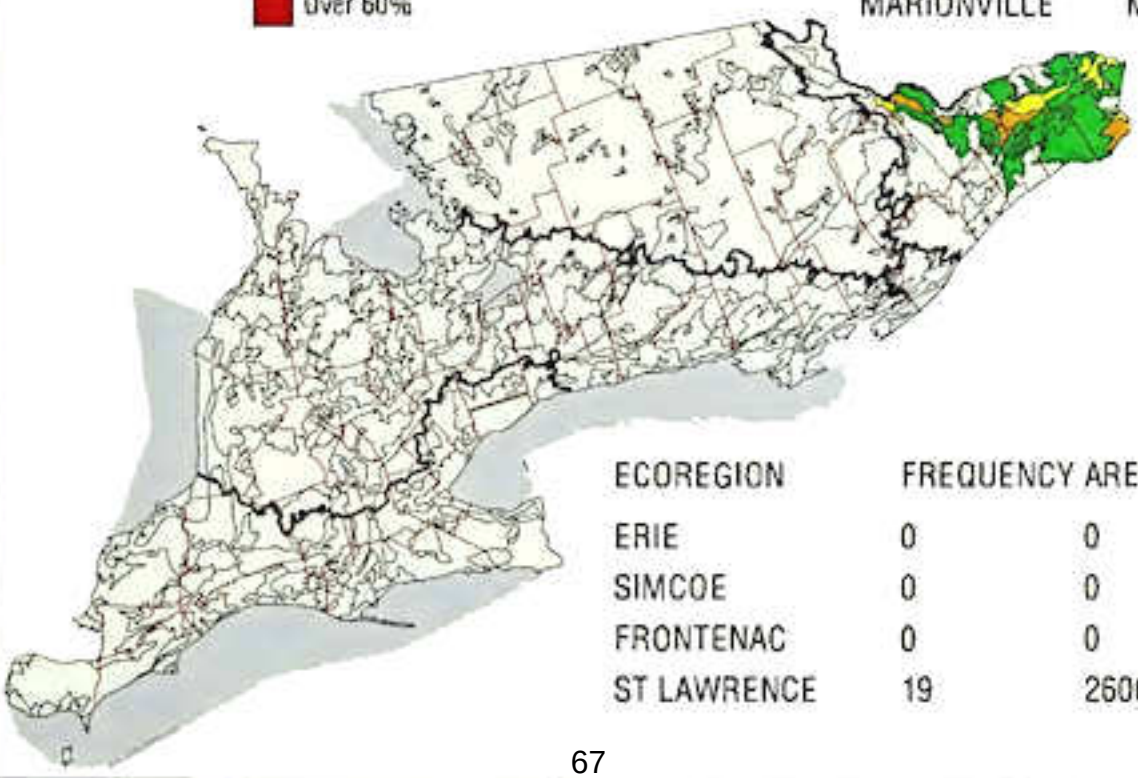
ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	6	28895

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : CASTOR

SERIES :

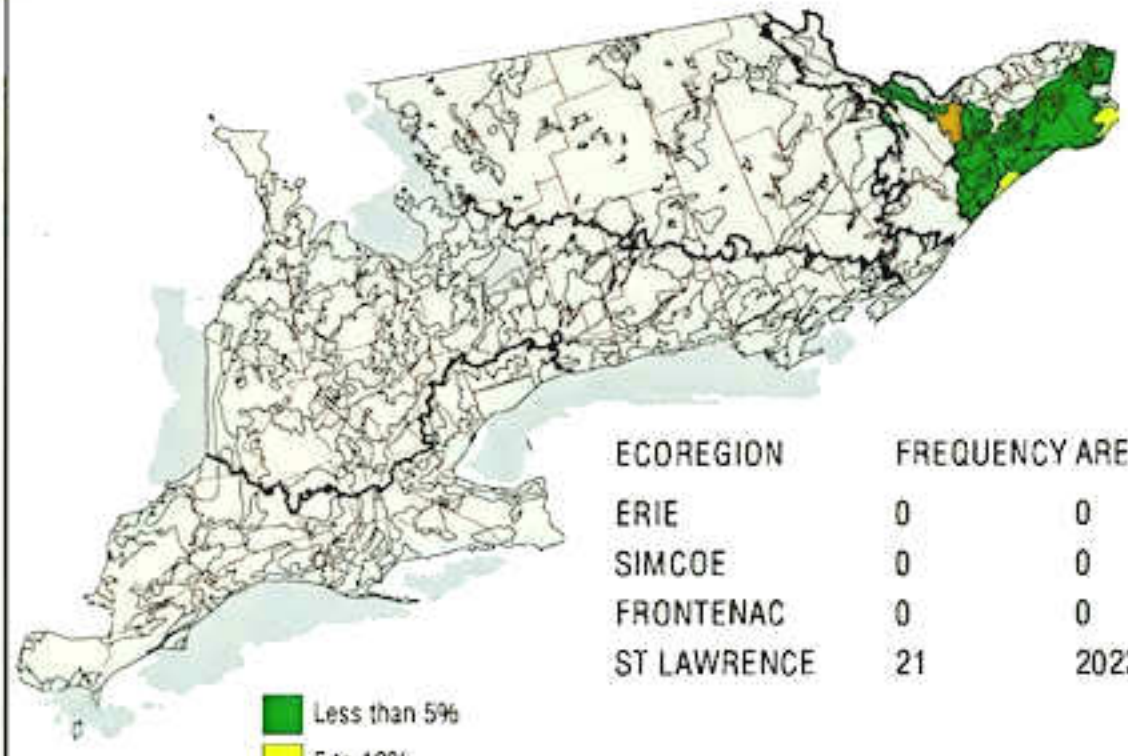
CASTOR	CST
BAINSVILLE	BIV
MARIONVILLE	MIV



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	19	26068

CATENA : PIPERVILLE

SERIES : PIPERVILLE PPV
OSGOODE OGO

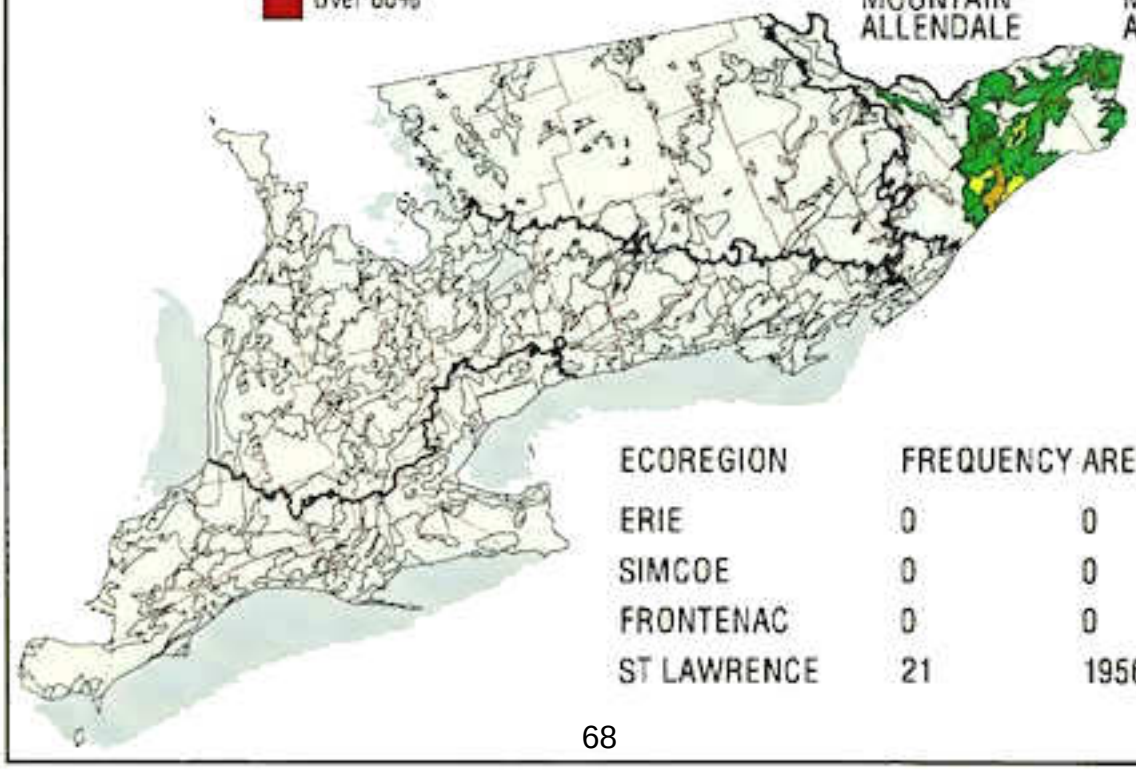


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	21	20221

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : MANOTICK

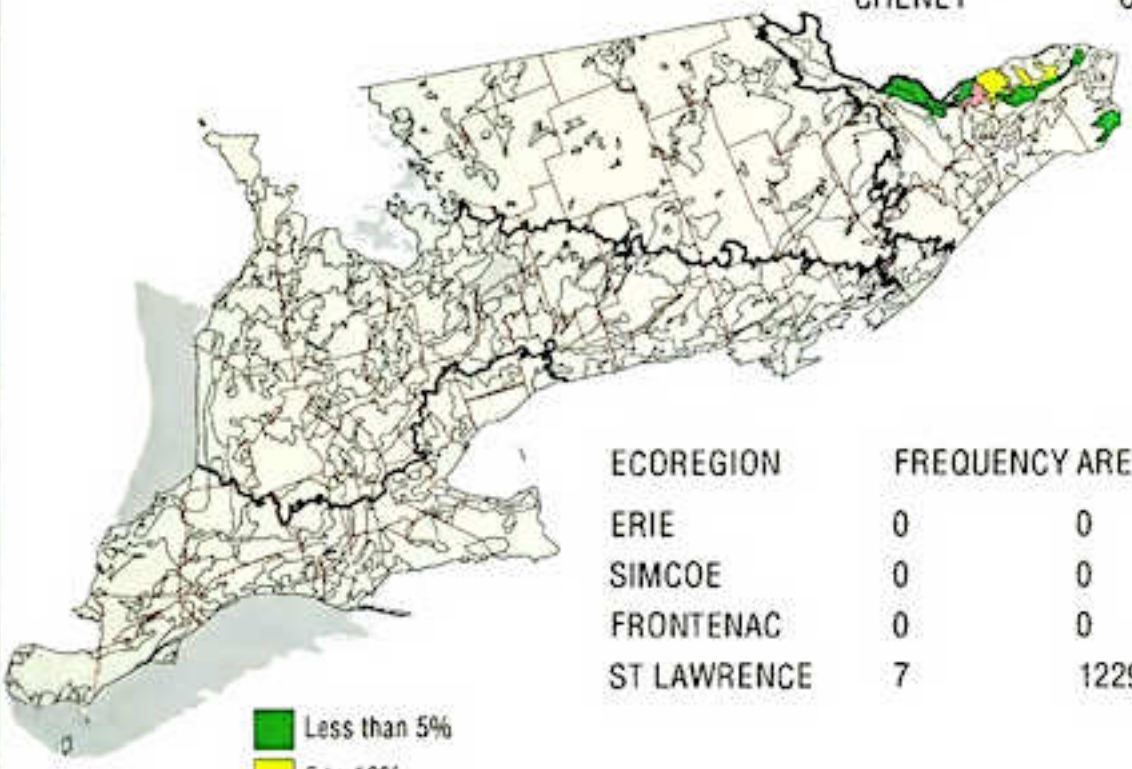
SERIES : MANOTICK MOK
BECKETTS CR BKK
MOUNTAIN MUA
ALLENDALE ALL



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	21	19560

CATENA : STTHOMAS

SERIES : STTHOMAS SHO
ACHIGAN AHG
CHENEY CEY

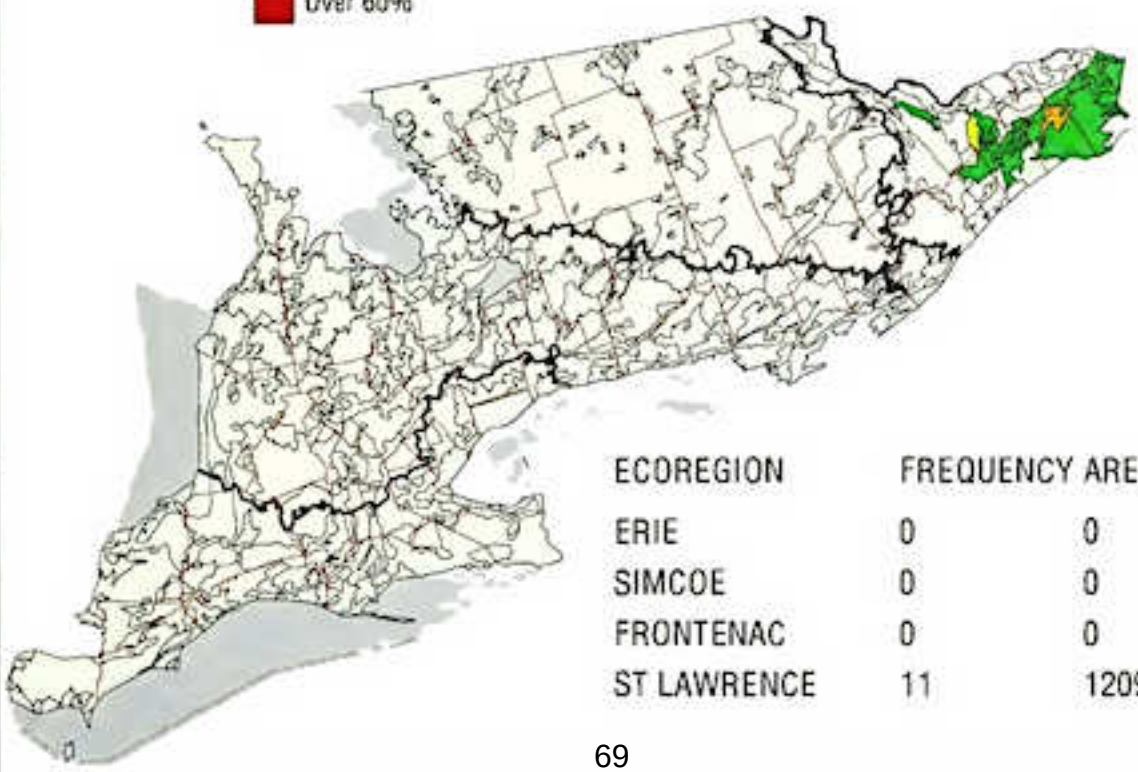


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	7	12299

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : KARS

SERIES : KARS KRS

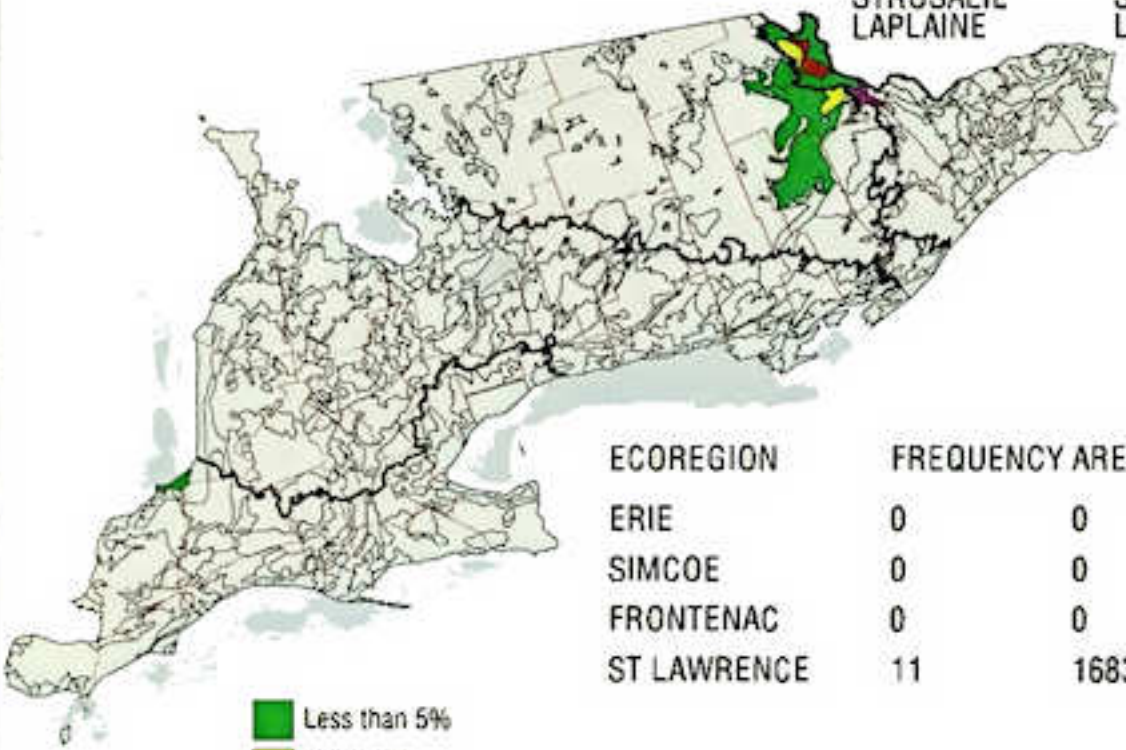


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	11	12092

CATENA : RENFREW

SERIES :

RENFREW	RFW
RIDEAU	RDU
STROSALIE	STA
LAPLAINE	LAP



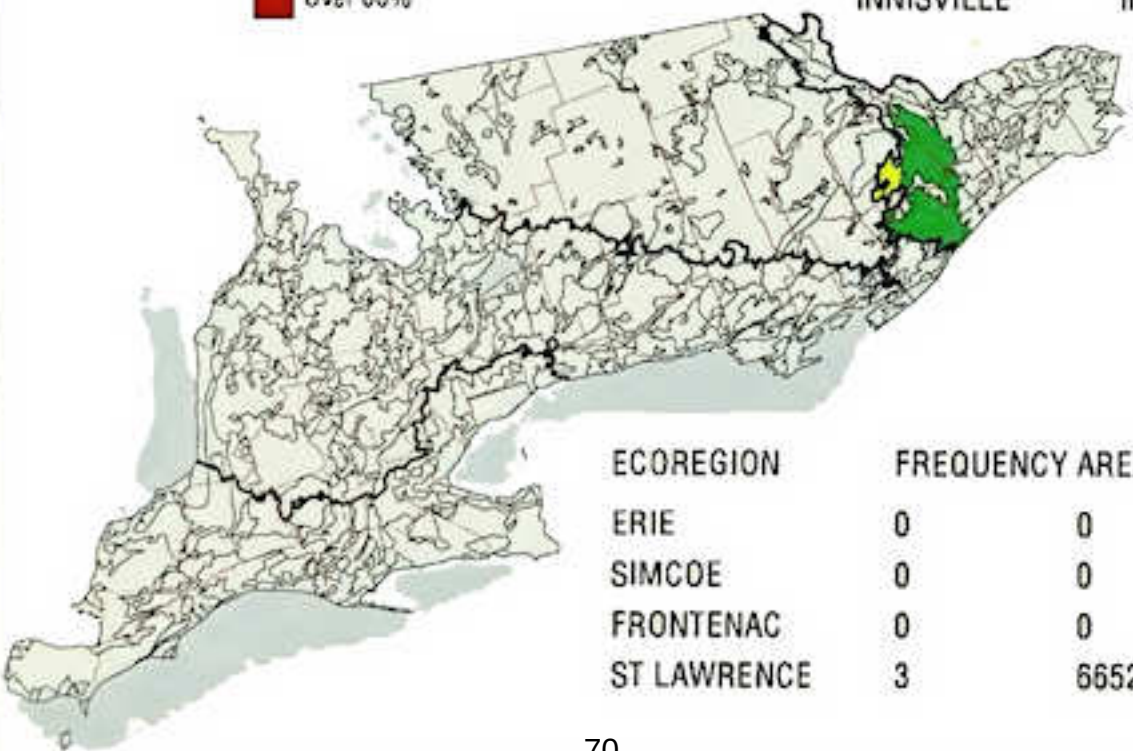
ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	11	16836

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : TENNYSON

SERIES :

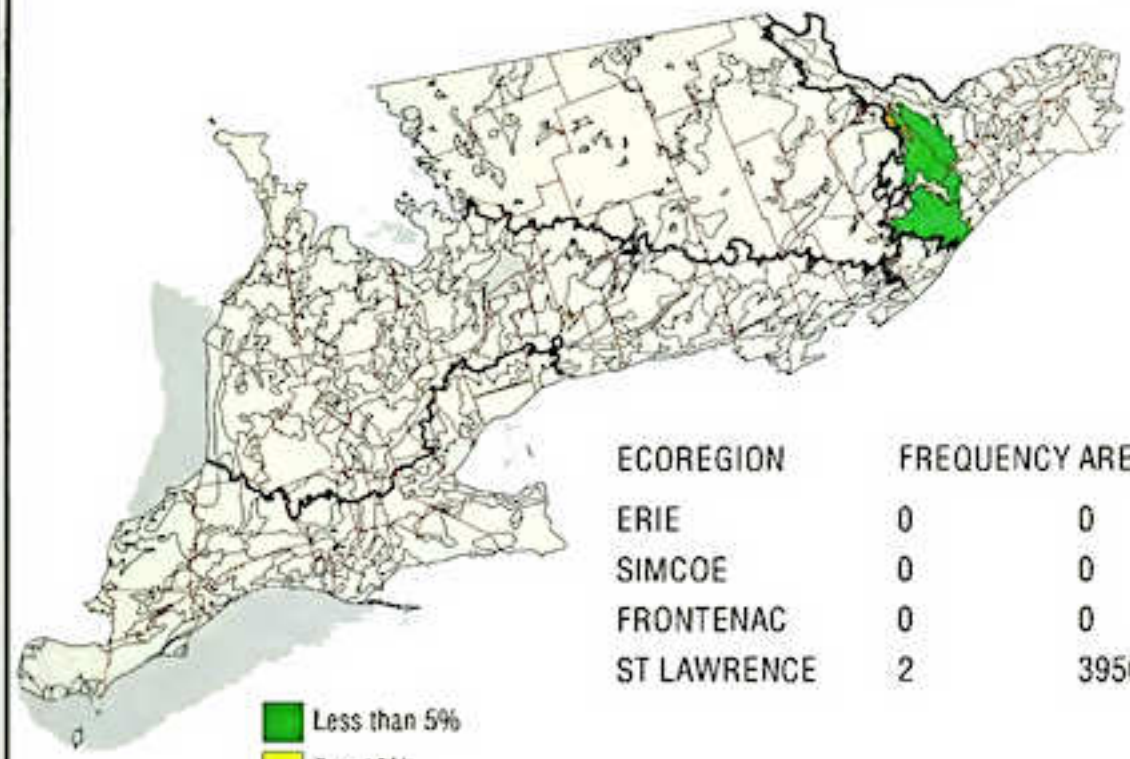
TENNYSON	TNY
BALDERSON	BDS
INNISVILLE	INV



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	3	6652

CATENA : ALMONTE

SERIES : ALMONTE AMO
SNEDDEN SND

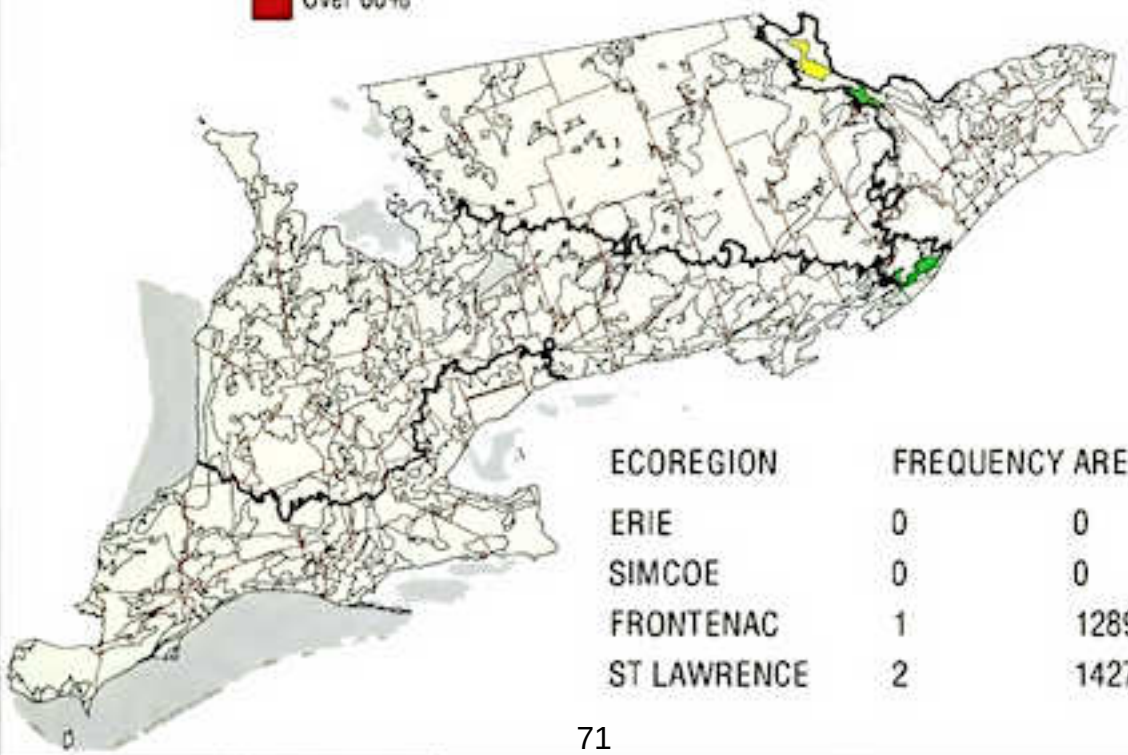


ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	2	3950

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

CATENA : WHITELAKE

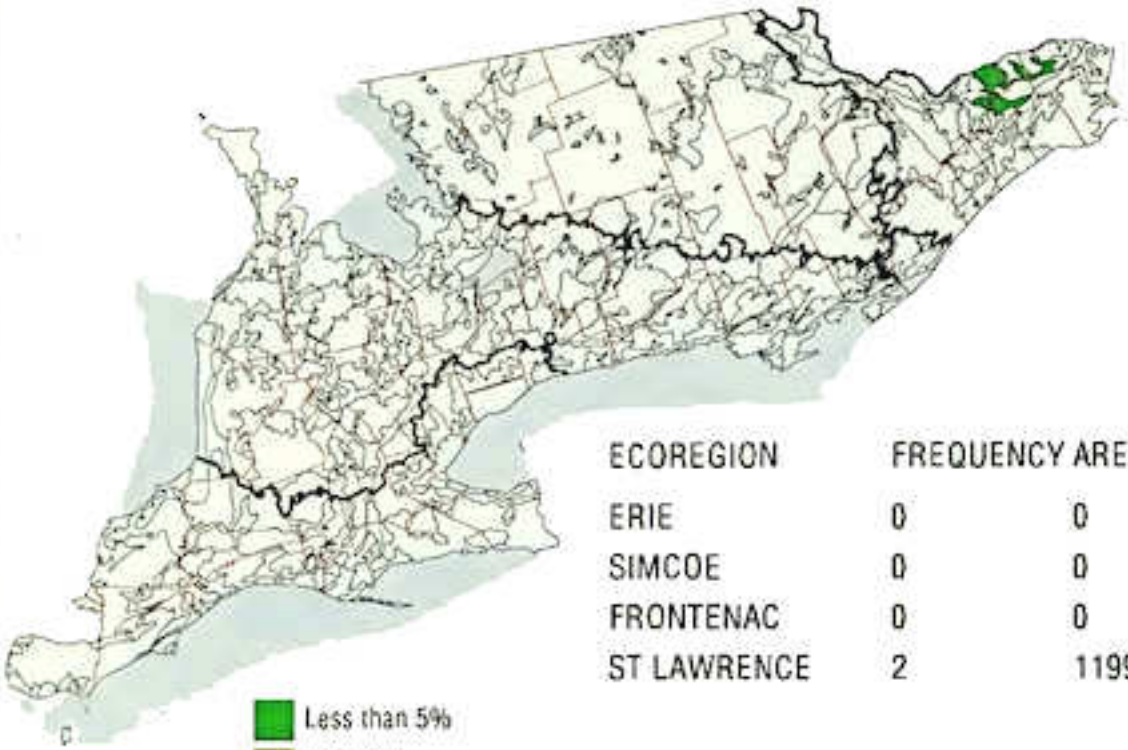
SERIES : WHITELAKE WHK



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	1	1289
ST LAWRENCE	2	1427

CATENA : VARS

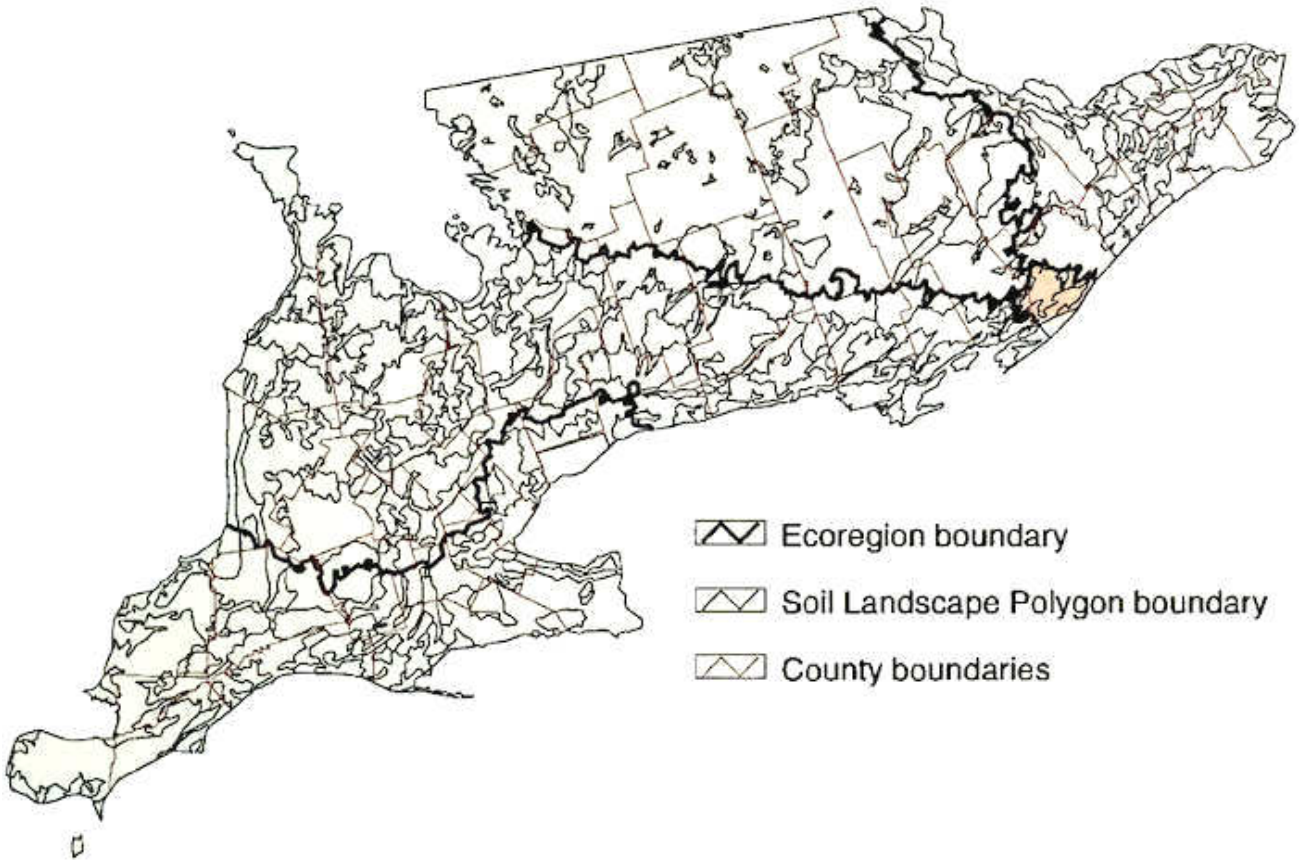
SERIES : VARS VRS



ECOREGION	FREQUENCY	AREA (ha)
ERIE	0	0
SIMCOE	0	0
FRONTENAC	0	0
ST LAWRENCE	2	1199

- Less than 5%
- 5 to 10%
- 10 to 20%
- 20 to 40%
- 40 to 60%
- Over 60%

5.4 Maps of Frontenac Axis Ecoregion



Soil catenae: (no maps)
Carp* Farmington* Gananoque* Monteagle* Seeleys Bay* White Lake*

* denotes soil catena also found in other ecoregions.

6 Index of Catena Names

Catena Name	Catena Code	Map Page #	Line #	Catena Name	Catena Code	Map Page #	Line #
ALMONTE	AMO	71	111	ELMSLEY	ESY	-	272
AMELIASBURG	AUG	-	262	FARMINGTON	FRM	63	273
ANCASTER	ACE	-	1	FONTHILL	FNT	-	224
APPLETON	APP	-	113	FOX	FOX	22	128
ATHOL	ATH	49	264	FREEPORT	FEP	-	92
BALMER	BMR	-	2	GALWAY	GWY	-	276
BANCROFT	BCF	-	210	GANANOQUE	GQU	46	132
BELMONT	BMT	-	265	NAPANEE	NPE	46	134
BENNINGTON	BNG	23	79	GRAND	GRD	61	297
BINBROOK	BNO	27	82	GRENVILLE	GVI	63	26
BLACKWELL	BCW	28	114	GRIMSBY	GMY	27	135
BOLINGBROKE	BNK	-	211	GUELPH	GUP	42	29
BONDHEAD	BDH	38	3	HAMPDEN	HMP	35	286
BOOKTON	BOO	23	83	HARKAWAY	HKY	45	32
BOOMER	BOM	-	294	HARRISTON	HRR	39	35
BRANT	BRT	21	115	HARROW	HRW	33	225
BRANTFORD	BFO	19	118	HILLER	HIL	56	278
BREYPEN	BPN	41	266	HILLSBURGH	HLH	49	94
BRIDGMAN	BGM	61	258	HONEYWOOD	HYW	24	95
BRIGHTON	BGH	44	214	HURON	HUO	38	38
BRINCO	BCO	-	217	KARS	KRS	69	226
BROCKPORT	BKP	32	267	KING	KIG	54	42
BRYANSTON	BBY	26	6	KINTYRE	KTY	30	204
BURFORD	BUF	48	218	KIRKLAND	KKD	-	300
BURNBRAE	BNB	-	270	LAMBTON	LMB	29	98
BURNSTOWN	BTW	-	9	LEITH	LTH	-	138
CAISTOR	CTR	25	10	LISBON	LSB	58	227
CALEDON	CAD	52	246	LOCKPORT	LKP	44	139
CARP	CRP	64	121	LONSDALE	LDL	-	287
CASHEL	CSH	24	86	LORRAINE	LRR	-	288
CASTOR	CST	67	201	LOWBANKS	TFG	34	140
CHANDOS	CHD	-	271	MANNHEIM	MNM	60	99
CHRISTY	CIY	-	11	MANOTICK	MOK	68	207
CLYDE	CYD	25	124	MEDONTE	MDT	50	143
COLBORNE	CLB	58	221	MELBOURNE	MEL	30	146
DALHOUSIE	DHU	66	125	METHUEN	MHU	-	280
DARLINGTON	DGT	52	12	MINESING	MSG	57	149
DELORO	DLO	40	15	MONTEAGLE	MGL	-	45
DONNYBROOK	DYK	50	222	MURIEL	MUI	21	47
DUMFRIES	DUF	39	19	NEPEAN	NPE	-	281
DUNDONALD	DUL	48	89	NEWBURGH	NWG	-	150
DUNEDIN	DUD	51	22	NEWCASTLE	NWC	55	153
EASTPORT	ETP	34	223	NORHAM	NHM	59	155
EGANVILLE	EGV	-	24	OAKVIEW	OVW	-	289
				ONEIDA	OID	19	50

Catena Name	Catena Code	Map Page #	Line #
ONTARIO	OTI	28	158
OSPREY	OPY	-	53
OTONABEE	OBE	42	55
PERCY	PCY	53	161
PIPERVILLE	PPV	68	164
PLAINFIELD	PFD	20	259
PONTYPOOL	PYO	40	228
PORT COLBORNE	PCE	-	290
RENFREW	RFW	70	166
SARGENT	SGT	-	229
SAUGEEN	SGE	43	169
SCHOMBERG	SMG	45	173
SCOTLAND	STD	31	100
SEELYES BAY	SYB	-	176
SENECA	SNA	36	59
SHASHAWANDA	SSW	-	231
SHEDDEN	SDD	33	251
SHERKSTON	SRK	-	291
SMITHVILLE	SHV	20	179
SOUTH BAY	SHY	47	182
SPRING VALE	SRI	-	185
ST CLEMENTS	SCM	-	60
ST JACOBS	SJB	60	253
ST PETERS	STR	-	232
ST THOMAS	SHO	69	233
STYX	SYX	35	292
TEESWATER	TEW	56	255
TENNYSON	TNY	70	62
TIOGA	TIG	41	236
TWEED	TWE	66	284
UPLANDS	UPD	65	186
VARS	VRS	72	65
VASEY	VSY	46	66
VINCENT	VCT	47	69
WAINFLEET	WAF	-	293
WALSHER	WSH	29	102
WATERLOO	WTO	43	189
WATTFORD	WAT	22	191
WAUPOOS	WPO	53	105
WENDIGO	WDG	55	239
WENDOVER	WDV	64	195
WHITE LAKE	WHK	71	243
WHITFIELD	WTF	-	285
WILSONVILLE	WIL	31	72
WINONA	WIO	-	197
WOBURN	WBU	26	73
WOLFORD	WFD	67	76
WOOLER	WOO	59	198
WOOLWICH	WOW	54	108
WYEVALE	WVL	-	244

7 Index of Series Name

Soil Name	Soil Code	Catena	Map Page	# Line #
ACHIGAN	LAC	SHO	69	234
ALLENDALE	ALL	MOK	68	209
ALLISTON	ALT	TIG	41	237
ALMONTE	AMO	AMO	71	111
AMELIASBURG	AUG	AUG	-	262
ANCASTER	ACE	ACE	-	1
APPLETON	APP	APP	-	113
ATHERLY	ATY	MDT	50	145
ATHOL	ATH	ATH	49	264
AYR	AYR	CAD	52	248
BAINSVILLE	BIV	CST	67	202
BALDERSON	BDS	TNY	70	63
BALLYMOTE	BLL	TEW	56	257
BALMER	BMR	BMR	-	2
BAMFORD	BMF	CLB	58	250
BANCROFT	BCF	BCF	-	210
BARRHAVEN	BVE	NPE	-	283
BATTERSEA	BTR	SYB	-	177
BEARBROOK	BBO	WDV	64	196
BELMEADE	BMD	CRP	64	123
BELMONT	BMT	BMT	-	265
BENNINGTON	BNG	BNG	23	79
BERRIEN	BRR	BOO	23	84
BEVERLY	BVY	BFO	19	119
BINBROOK	BNO	BNO	27	82
BLACKWELL	BCW	BCW	28	114
BOLINGBROKE	BNK	BNK	-	211
BONDHEAD	BDH	BDH	38	3
BOOKTON	BOO	BOO	23	83
BOOMER	BOM	BOM	-	294
BRADY	BAY	FOX	22	130
BRANDON	BDO	DHU	66	126
BRANT	BRT	BRT	21	115
BRANTFORD	BFO	BFO	19	118
BREYPEN	BPN	BPN	41	266
BRIDGMAN	BGM	BGM	61	258
BRIGHTON	BGH	BGH	44	214
BRINCO	BCO	BCO	-	217
BRISBANE	BSB	BUF	48	219
BROCKPORT	BKP	BKP	32	267
BROOKE	BOK	FRM	63	275
BROOKSTON	BKN	HUO	38	40
BROOKSTON	BKN	KIG	54	44
BROOKSTON	BKN	VCT	47	71
BRYANSTON	BBY	BBY	26	6
BURFORD	BUF	BUF	48	218
BURNBRAE	BNB	BNB	-	270
BURNSTOWN	BTW	BTW	-	9
CAISTOR	CTR	CTR	25	10
CALEDON	CAD	CAD	52	246
CAMILLA	CML	CAD	52	247
CARP	CRP	CRP	64	121
CASHEL	CSH	CSH	67	86
CASTOR	CST	CST	67	201
CHANDOS	CHD	CHD	-	271
CHENEY	CEY	CEY	69	235
CHESLEY	CLY	SGE	43	171
CHINGUACOUSY	CGU	OID	19	51
CHRISTY	CIY	CIY	-	11
CHURCHVILLE	CHV	WAT	22	194
CLYDE	CYD	CYD	25	124
CODRINGTON	CGT	NHM	59	156
COLBORNE	CLB	CLB	58	221
COLWOOD	CWO	BRT	21	117
CONESTOGO	CTG	WOW	54	109
COOKSVILLE	CKV	BKP	32	268
CRAIG LEITH	CGH	DUD	51	23
CROMBIE	CMB	HYW	24	97
DALHOUSIE	DHU	DHU	66	125
DARLINGTON	DGT	DGT	52	12
DELORO	DLO	DLO	40	15
DONALD	DOD	BOM	-	295
DONNYBROOK	DYK	DYK	50	222
DORKING	DKG	HUO	38	41
DUMFRIES	DUF	DUF	39	19
DUMMER	DMM	DLO	40	16
DUNDONALD	DUL	DUL	48	89
DUNEDIN	DUD	DUD	51	22
EASTPORT	ETP	ETP	34	223
EDENVALE	EDV	DUL	48	90
EGANVILLE	EGV	EGV	-	24
EKFRID	EKF	MEL	30	147
ELDERSLIE	EDS	SGE	43	170

Soil Name	Soil Code	Catena	Map Page #	Line #	Soil Name	Soil Code	Catena	Map Page #	Line #
ELDORADO	EDO	OBE	42	56	HESPELER	HSP	KKD	-	302
ELMBROOK	EOK	SHY	47	183	HIGHGATE	HHG	KTY	30	205
ELMIRA	EMI	GRD	61	299	HILLER	HIL	HIL	56	278
ELMSLEY	ESY	ESY	-	272	HILLSBURGH	HLH	HLH	49	94
EMBRO	EBR	HYW	24	96	HINCHINBROOKE	HHO	NWG	-	152
EMILY	EMY	OBE	42	57	HONEYWOOD	HYW	HYW	24	95
FALLOWFIELD	FWF	NPE	-	282	HOWLAND	HWD	VSY	46	67
FANSHAWE	FAN	TEW	56	256	HURON	HUO	HUO	38	38
FARMINGTON	FRM	FRM	63	273	INNISVILLE	INV	TNY	70	64
FERNDALE	FRD	SGE	-	172	JEDDO	JDD	OID	19	52
FLAMBOROUGH	FMB	GMY	27	137	KARS	KRS	KRS	69	226
FLORADALE	FAD	SJB	60	254	KELVIN	KVN	MUI	21	49
FONTHILL	FNT	FNT	-	224	KEMBLE	KMB	VCT	47	70
FOX	FOX	FOX	22	128	KENABEEK	KEK	WMH	-	241
FOXBORO	FXB	PCY	53	163	KILLEAN	KIL	DUF	39	20
FRANKTOWN	FKW	FRM	63	274	KING	KIG	KIG	54	42
FREEPORT	FEP	FEP	-	92	KINTYRE	KTY	KTY	30	204
GALWAY	GWY	GWY	-	276	KIRKLAND	KKD	KKD	-	300
GANANOQUE	GQU	GQU	46	132	KOSSUTH	KSU	FEP	-	93
GEROW	GOW	AUG	-	263	LAMBTON	LMB	LMB	29	98
GEROW	GOW	HIL	56	279	LANSDOWNE	LDW	GQU	46	133
GILFORD	GFD	BUF	48	220	LEITH	LTH	LTH	-	138
GOBLES	GOB	MUI	21	48	LILY	LIY	DUF	39	21
GOODSTOWN	GDT	DHU	66	127	LILY	LIY	OPY	-	54
GRANBY	GNY	FOX	22	131	LINCOLN	LIC	SHV	20	181
GRANBY	GNY	BNK	-	213	LINDSAY	LSY	WPO	53	107
GRANBY	GNY	BGH	44	216	LISBON	LSB	LSB	58	227
GRANBY	GNY	TIG	41	238	LISTOWEL	LTW	HRR	39	36
GRAND	GRD	GRD	61	297	LOCKPORT	LKP	LKP	44	139
GRENVILLE	GVI	GVI	63	26	LONDON	LOD	GUP	42	30
GRIMSBY	GMY	GMY	27	135	LONSDALE	LDL	LDL	-	287
GUELPH	GUP	GUP	42	29	LORRAINE	LRR	LRR	-	288
GUERIN	GUR	BDH	38	4	LOVERING	LVR	MDT	50	144
GWILLIMBURY	GIY	SGT	-	230	LOWBANKS	LOW	LOW	34	140
HALDIMAND	HIM	SHV	20	180	LYONS	LYS	BDH	38	5
HAMPDEN	HMP	HMP	35	286	LYONS	LYS	DGT	52	14
HARKAWAY	HKY	HKY	45	32	LYONS	LYS	GVI	63	28
HARNEY	HEY	DLO	40	18	LYONS	LYS	OBE	42	58
HARRISTON	HRR	HRR	39	35	LYONS	LYS	VSY	46	68
HARROW	HRW	HRW	33	225	LYONS	LYS	WBU	26	75
HAWKESVILLE	HWV	BOM	-	296	MACTON	MCT	GRD	61	298
HAYSVILLE	HYV	KKD	-	301	MALLARD	MLR	WDG	55	240
HEIDELBERG	HIG	WTO	43	190	MALTON	MAT	CSH	24	88
HENDRIE	HDI	WVL	-	245	MANNHEIM	MNM	MNM	60	99

Soil Name	Soil Code	Catena	Map Page #	Line #	Soil Name	Soil Code	Catena	Map Page #	Line #
MANOTICK	MOK	MOK	68	207	PETHERWICK	PWK	NHM	59	157
MAPLEWOOD	MPW	BNG	23	81	PICADILLY	PAY	NWG	-	151
MARIONVILLE	MIV	CST	67	203	PIPERVILLE	PPV	PPV	68	164
MARYHILL	MYL	WOW	54	110	PLAINFIELD	PFD	PFD	20	259
MATILDA	MTD	GVI	63	27	PONTYPOOL	PYO	PYO	40	228
MATSON	MTS	NWC	55	154	PORT COLBORNE	PCE	PCE	-	290
MEDONTE	MDT	MDT	50	143	RENFREW	RFW	RFW	70	166
MELBOURNE	MEL	MEL	30	146	RIDEAU	RDU	RFW	70	167
METHUEN	MHU	MHU	-	280	ROCKCROFT	RKF	DLO	40	17
MIDDLEMARCH	MDM	SDD	33	252	RUBICON	RUB	UPD	65	187
MILL	MIL	DUL	48	91	SARGENT	SGT	SGT	-	229
MILLIKEN	MLE	WBU	26	74	SAUGEEN	SGE	SGE	43	169
MINESING	MSG	MSG	57	149	SCHOMBERG	SMG	SMG	45	173
MISSISSAUGA	MSP	MSP	-	269	SCOTLAND	STD	STD	31	100
MONAGHAN	MOG	KIG	54	43	SEELEYS BAY	SYB	SYB	-	176
MONTEAGLE	MGL	MGL	-	45	SENECA	SNA	SNA	36	59
MORLEY	MOY	TFG	34	142	SHASHAWANDA	SSW	SSW	-	231
MORRISBURG	MBG	WFD	67	77	SHEDDEN	SDD	SDD	33	251
MOSCOW	MCW	SYB	-	178	SHERKSTON	SRK	SRK	-	291
MOUNTAIN	MUA	MOK	68	208	SIDNEY	SIY	SHY	47	184
MUIRKIRK	MKK	KTY	30	206	SILVER HILL	SIH	WSH	29	104
MURIEL	MUI	MUI	21	47	SIMCOE	SMC	SMG	45	175
MURRAY	MUY	WOO	59	199	SMITHFIELD	SMF	SMG	45	174
NAPANEE	NPE	GQU	46	134	SMITHVILLE	SHV	SHV	20	179
NEPEAN	NPE	NPE	-	281	SNEDDEN	SND	AMO	71	112
NEWBURGH	NWG	NWG	-	150	SOLMESVILLE	SMV	WPO	53	106
NEWCASTLE	NWC	NWC	55	153	SOUTH BAY	SHY	SHY	47	182
NIAGARA	NGR	OTI	28	159	SPRINGVALE	SRI	SRI	-	185
NISSOURI	NIS	BBY	26	8	ST CLEMENTS	SCM	SCM	-	60
NORHAM	NHM	NHM	59	155	ST CROIX	SCX	GWY	-	277
NORMANDALE	NDE	WAT	22	192	ST JACOBS	SJB	SJB	60	253
NORTH GOWER	NGW	CRP	64	122	ST PETERS	STR	STR	-	232
OAKLAND	OKL	STD	31	101	ST ROSALIE	STA	RFW	70	168
OAKVIEW	OVW	OVW	-	289	ST SAMUEL	SSM	UPD	65	188
ONEIDA	OID	OID	19	50	ST THOMAS	SHO	SHO	69	233
ONTARIO	OTI	OTI	28	158	ST WILLIAMS	SLI	WAT	22	193
OSGOODE	OGO	PPV	68	165	STAFFORD	SFD	EGV	-	25
OSNABRUCK	OBK	WFD	67	78	STOCKDALE	SKD	WOO	59	200
OSPREY	OPY	OPY	-	53	STRATHBURN	SBN	MEL	30	148
OTONABEE	OBE	OBE	42	55	STYX	SYX	SYX	35	292
PARKHILL	PLL	GUP	42	31	SULLIVAN	SVN	FOX	22	129
PARKHILL	PLL	HKY	45	34	TAVISTOCK	TVK	BNG	23	80
PARKHILL	PLL	HRR	39	37	TECUMSETH	TUH	BGH	44	215
PEEL	PEL	CSH	24	87	TEESWATER	TEW	TEW	56	255
PERCY	PCY	PC?	53	161	TENNYSON	TN?	TNY	70	62
PERTH	PTH	HUO	38	39	THORNDALE	THN	BBY	26	7

Soil Name	Soil Code	Catena	Map Page #	Line #
TIOGA	TIG	TIG	41	236
TOLEDO	TLD	BFO	19	120
TRAFALGAR	TFG	LOW	34	141
TRENT	TRT	PCY	53	162
TUSCOLA	TUC	BRT	21	116
TWEED	TWE	TWE	66	284
UPLANDS	UPD	UPD	65	186
VARS	VRS	VRS	72	65
VASEY	VSY	VSY	46	66
VINCENT	VCT	VCT	47	69
VINELAND	VLD	GMY	27	136
VITTORIA	VIT	WSH	29	103
WAINFLEET	WAF	WAF	-	293
WALSHER	WSH	WSH	29	102
WALSINGHAM	WAM	PFD	20	260
WATERIN	WRN	PFD	20	261
WATERLOO	WTO	WTO	43	189
WATTFORD	WAT	WAT	22	191
WAUPOOS	WPO	WPO	53	105
WAUSEON	WUS	BOO	23	85
WAYSIDE	WYD	BNK		212
WELLAND	WLL	OTI	28	160
WELLESLEY	WEY	SCM		61
WEMYSS	WYS	MGL	-	46
WENDIGO	WDG	WDG	55	239
WENDOVER	WDV	WDV	64	195
WESTMEATH	WMH	WMH	-	242
WHITBY	WBY	DGT	52	13
WHITE LAKE	WHK	WHK	71	243
WHITFIELD	WTF	WTF	-	285
WIARTON	WIT	HKY	45	33
WILSONVILLE	WIL	WIL	31	72
WINONA	WIO	WIO	-	197
WOBURN	WBU	WBU	26	73
WOLFORD	WFD	WFD	67	76
WOOLER	WOO	WOO	59	198
WOOLWICH	WOW	WOW	54	108
WYEVALE	WVL	WVL	-	244

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